HABITAT TECHNOLOGIES

MAR 18 2013

March 18, 2013

Mr. James Kerby, Director of Architectural Design and Land Development @ Benjamin-Ryan Communities 10011 Bridgeport Way SW – Suite 1500-212 Lakewood, Washington 98499

e-mail kerby@benjamin-ryan.com

MAR 1 8 2013

RE: UPDATE ASSESSMENT

Critical Areas Assessment and Habitat Management Plan Parcels 0420254702 and 0420254027 Foster Family Property, City of Sumner

Dear Mr. Kerby,

Pursuant to our discussions Habitat Technologies has completed an onsite assessment to update the findings outlined in the *Critical Habitats Assessment and Associated Habitat Management Plan* prepared for Foster Family Property (Parcels 0420254702 and 0420254027) dated November 25, 2008 (Appendix A). This recent onsite assessment was undertaken to document whether or not site conditions had changed since 2008, and to evaluate the project site using presently adopted wetland delineation methodologies. The recent onsite assessment was completed following the methods and procedures defined in the *Corps of Engineers Wetland Delineation Manual* (1987 Manual) with the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (2010 Supplement); the guidance provided for the *Washington State Wetlands Identification and Delineation Manual* (Wash Manual); and the City of Sumner Chapter 16.56.

PROJECT SITE DESCRIPTION

The project site was located in the City of Sumner, was approximately eight (8) acres in size, and composed of two (2) existing vacant parcels. The project site had undergone prior land use manipulations to include clearing, grading, the production and harvesting of agricultural crops, development of public and private roadways, and the development of adjacent properties. As documented in March 2013 the project site continued to be managed for agricultural crop production (Figure 1).

BACKGROUND INFORMATION

As initially identified in the 2008 assessment and as identified again during the recent 2013 assessment existing federal, state, and local resource mapping does not identify any wetlands or drainage corridors within or immediately adjacent to the project site.

wetlands, streams, fisheries, wildlife – mitigation and permitting solutions 08142 P.O. Box 1088, Puyallup, Washington 98371 voice 253-845-5119 fax 253-841-1942 habitattech@gwestoffice.net

These mapping resources did identify the Puyallup River offsite to the south of the project site. The Puyallup River is identified as a Type S Water (Shoreline of the State), a City of Sumner Type 1 Stream, and as providing habitats for a variety of fish species. Identified fish species included Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), chum salmon (*Oncorhynchus keta*), pink salmon (*Oncorhynchus gorbuscha*), sockeye salmon (*Oncorhynchus nerka*), steelhead/rainbow trout (*Oncorhynchus mykiss*), cutthroat trout (*Oncorhynchus clarkii*), native char (*Salvelinus spp.*), mountain whitefish (*Prosopium spp.*); and a number of other non-salmonid fish species.

The soil mapping inventory completed by the Soils Conservation Service identified the soil in the northern portion of the project as sultan silt loam (248). The Sultan soil series is defined as moderately well drained, as formed in alluvium, and as not listed as "hydric." The central portion of the project site is mapped as Briscot loam (6A). The Briscot soil series is defined as somewhat poorly drained, as formed in alluvium under hardwoods and conifers, and as listed as "hydric." The southern portion of the project site is defined as Puyallup fine sandy loam (31A). The Puyallup soil series is defined as well drained, as formed in sandy mixed alluvium, and as not listed as "hydric."

ONSITE ANALYSIS

Criteria for Wetland, Stream, and Habitat Identification

Wetlands are transitional areas between aquatic and upland habitats. In general terms, wetlands are lands where the extent and duration of saturation with water is the primary factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface (Cowardin, et al., 1979). Wetlands are generally defined within land use regulations as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (1987 Manual).

Wetlands exhibit three essential characteristics, all of which must be present for an area to meet the established criteria within the 1987 Manual with 2010 Supplement. These essential characteristics are:

- 1. Hydrophytic Vegetation: A predominance of plants that are typically adapted for life in saturated soils.
- 2. Hydric Soil: A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper horizons.
- 3. Wetland Hydrology: Permanent or periodic inundation, or soil saturation to the surface, at least seasonally.

A stream is generally defined as naturally occurring body of periodic or continuously flowing water where: (i) the mean annual flow is greater than 20 cubic feet per second

and (ii) the water is contained within a channel. "Channel" is defined as an open conduit for water either naturally or artificially created, but does not include artificially created irrigation, return flow, or stock watering channels.

Fish and wildlife habitat areas are those areas identified by the City of Sumner as being of critical importance to maintenance of fish, wildlife, or plant species, including:

- A. Areas with which federally or state-listed endangered, threatened, or sensitive species of fish, wildlife, or plants have a primary association;
- B. Areas with habitats and species of local importance, including the following:
 - 1. Areas with which state-listed monitor or candidate species or federally listed candidate species have a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term;
 - Special habitat areas which may provide specific habitats which certain animals and plants require such as breeding habitat, winter range, and movement corridors;
- C. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and wildlife habitat;
- Waters of the state, including all water bodies classified by the Washington State Department of Natural Resources water typing classification system as detailed in WAC 222-16-031;
- E. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
- F. State natural area preserves and natural resource conservation areas.

2013 Assessment

The project site was accessed via River Grove Drive East which generally formed the northern boundary of the project site. Existing single-family homes were located adjacent to the western boundary and the northeastern portion of the project site. The remainder of the eastern project site was bound by SR 162 East. A public roadway serving several single-family homes was located adjacent to the southern boundary. The project site was separated from the Puyallup River by a constructed levy system, a number of existing single family homesites, and a developed public roadway (78th Street Court East).

Soils

The general location of representative sample plots established as a part of the 2008 assessment were re-evaluated during March 2013. As documented at these representative sample plots the upper soil profile had been managed and altered by prior and ongoing agricultural actions. The soil exhibited a texture of the surface soil ranging between loose loam, sandy loam; and fine sandy loam. Surface soil coloration ranged from dark brown (10YR 3/3) to very dark grayish brown (10YR 3/2). The subsoil exhibited a soil texture that ranged from sandy loam to fine sandy loam and a coloration

ranging from dark brown (10YR 3/3) to dark grayish brown (10YR 4/2). The majority of the onsite soil appeared to drain moderately well to well and exhibited few redoximorphic features. None of the sample plots exhibited field characteristics typically associated with hydric soils as established within the 2010 Supplement. The 2013 field data are provided in Appendix B.

Hydrology

Onsite hydrology appeared to be the result of seasonal stormwater runoff from onsite and adjacent properties, topography, and soil characteristics. As defined in 2008 and again in 2013 the project site appeared to drain moderately well to well and did not exhibit field indicators typically associated with wetland hydrology or the retention of seasonal stormwater runoff.

Vegetation

As defined in 2008 and again in 2013 the project site exhibited a single plant community which had been altered and managed by prior and ongoing land use actions. Observed species included a scattering of dandelion (*Taraxacum officinale*), daisy (*Bellis perennis*), clover (*Trifolium* spp.), hairy cats ear (*Hypochaeris radicata*), sheep sorrel (*Rumex acetosella*), geranium (*Geranium spp.*), smooth cats ear (*Hypochaeris glabra*), bedstraw (*Galium* spp.), Canadian thistle (*Cirsium arvensis*), bull thistle (*Cirsium vulgare*), reed canarygrass (*Phalaris arundinacea*), orchardgrass (*Dactylis glomerata*), fescue (*Festuca* spp.), velvet grass (*Holcus lanatus*), bluegrass (*Poa spp.*), toad rush (*Juncus bufonius*), field mint (*Mentha arvensis*), and Queen Anne's Lace (*Daucus carota*). This plant association had become established following recent agricultural actions and was identified as non-hydrophytic in character (i.e. typical of uplands).

Fish and Wildlife

As defined in 2008 and again in 2013 the project site was dominated by an open agricultural field. It is unlikely based upon the existing site conditions, coupled with adjacent land uses, that species which require large areas of undisturbed habitat would exist onsite. Those species that would utilize the habitats associated with the project site would not differ than those species identified in the 2008 report. The project site did not provide habitats for spawning and rearing amphibians and did not provide habitats for fish species.

The Puyallup River Corridor offsite to the south of the project site is documented to provide a wide range of habitats for aquatic and terrestrial species. These species include a variety of fish, waterfowl, shorebirds, and raptors. However, the majority of these species would not be expected to utilize the habitats provided by the project site.

Two listed federally threatened species – Chinook salmon and native char – are documented to use the habitats within the Puyallup River. However, the project site did not provide critical habitats for these species.

WETLAND, DRAINAGE CORRIDOR, AND HABITATS DETERMINATION

As identified during the 2008 assessment and as re-defined during the March 2013 assessment no portion of the project site exhibit all three of the established wetland criteria. In addition, no portion of the project site was identified to exhibits characteristics of a stream or City of Sumner listed "fish and wildlife habitat areas" (see Photos).

These assessments did identify the Puyallup River offsite to the south of the project site. This river corridor was separated from the project site by a constructed levy system, a number of existing single family homesites, and a developed public roadway (78th Street Court East).

STREAM	CLASSIFICATION (USFWS) (onsite)	WDNR STREAM CLASS	CITY OF SUMNER TYPE	CITY OF SUMNER BUFFER WIDTH
Puyallup River	R2SB	State Shoreline	1	100feet*

^{*} Shoreline Residential Environment

Puyallup River: The Puyallup River was identified offsite to the south of the project site within a controlled levy system. Surface flow within the river was generally to the west within the vicinity of the project site. The Puyallup River is documented to provide habitats for Chinook salmon, coho salmon, chum salmon, pink salmon, sockeye salmon, steelhead/rainbow trout, cutthroat trout, native char, and Mountain whitefish; as well as a number of other non-salmonid fish species. The Puyallup River is identified by the City of Sumner as a Type 1 Stream and by WDNR as a Shoreline of the State.

REGULATORY CONSIDERATION

The proposed alteration of lands defined by various federal, state, and local authority rules and regulations as "wetlands," "streams," and "critical habitat areas" raises environmental concerns. These concerns center on the development's potential impacts to the structure, functions, values, and sizes of these areas.

As defined by onsite assessment there are no identified wetlands, streams, or fish and wildlife habitat areas within or immediately adjacent to the Foster Family Property. However, the Puyallup River is located within a constructed corridor to the south of the Foster Family Property.

City of Sumner - Chapter 16.56 - Wildlife Habitat Area

As outlined by the City of Sumner the purpose of Chapter 16.56 is to regulated development and the use of land to preserve and protect areas of critical and endangered fish and wildlife habitat; and to conform with the Washington State Growth Management Act (16.56.030).

The City of Sumner has identified that where a habitat assessment demonstrates to the satisfaction of the City that fish and wildlife habitat areas are not within 1,000 feet of the project site, then the development can proceed without further requirements for special fisheries or wildlife studies pursuant to this chapter. Otherwise, a *Habitat Management Plan* (16.56.080) shall be submitted to the City of Sumner. The purpose of the *Habitat Management Plan* is to provide for the implementation, monitoring, and maintenance of permanent mitigation and restoration measures for fish and wildlife habitat.

Habitat Management Plan Discussion

As identified by onsite assessments in 2008 and March 2013 the project site has been managed and manipulated for the production of agricultural crops for several decades. The project site is routinely plowed/tilled, seeded, and harvested as a part of these ongoing agricultural actions. The project site does not exhibit any areas defined as "wetland," "stream," or "critical fish and wildlife habitats." The project site is also bounded by existing residential developments and public roadways.

The Puyallup River is located more than 150 feet south of the project site. While this river corridor provides a variety of habitats for aquatic and terrestrial species these habitats are separated from the project site by existing residential developments and roadways. In addition, the Puyallup River is confined within a constructed level system and as a result of these developments there is no connective corridor between the project site and the Puyallup River.

The following outline was presented within the 2008 document and continues to be relevant following the March 2013 assessment.

As defined by the City of Sumner the *Habitat Management Plan* shall contain at a minimum:

1. A discussion of the project's effects on fish and wildlife habitat;

Discussion: The project site has been managed and manipulated for the production of agricultural crops for several decades. As such, the project site provides only limited habitats for a limited number of wildlife species. In particular, the project site does not provide critical habitats for federally or state-listed endangered, threatened, or sensitive species of fish, wildlife, or plants. As such, the development of the project site would not exhibit a significant impact on fish and wildlife habitat.

2. A discussion of any federal, state, or local special management recommendations which have been developed for species or habitats located on the site;

Discussion: There are presently no federal, state, or local management recommendations for the types of habitats provided within the project site.

The City of Sumner has identified a special management recommendation for the Puyallup River within the City's Shoreline Management Regulations (16.14.040). These regulations require that permanent structures, storage, and hard surfaces shall be set back a minimum of 100 feet from the floodway or ordinary high water mark (whichever is further landward) within the "Shoreline Residential Environment."

3. A discussion of measures to preserve existing habitats and restore habitats which were degraded prior to the proposed land use activity.

Discussion: Since the development of the project site would not have a significant impact on fish and wildlife habitat no measures to preserve existing habitats or restored habitats appear required to meet the intent of Chapter 16.56.

4. A discussion of proposed measures which mitigate the impacts of the project;

Discussion: Since the development of the project site would not exhibit a significant impact on fish and wildlife habitat no measures to mitigate the impacts of this project appear required.

5. An evaluation of the effectiveness of the proposed mitigation and restoration measures;

Discussion: Since no measures to mitigate the impacts of this project appear required, no associated evaluation appears required.

 A discussion of ongoing management practices which will protect fish and wildlife habitat after the project site has been fully developed, including proposed monitoring and maintenance programs;

Discussion: Since no measures to mitigate the impacts of this project appear required, no associated monitoring or maintenance appears required.

7. An assessment of habitat recommendations proposed by resource agencies and their applicability to the proposal; and

Discussion: Since no measures to mitigate the impacts of this project appear required, no further assessment appears required.

8. Any additional information necessary to determine the impacts of a proposal and mitigation of the impacts.

Discussion: No additional information appears necessary to determine the impacts of the development of this project site on existing onsite habitats. The project site is located more than 150 feet away from the Puyallup River and separated from the Puyallup River Corridor by existing residential and paved roadway development.

SELECTED DEVELOPMENT ACTION

The Selected Development Action for the project site focuses on the development of a residential community consistent with the City of Sumner Comprehensive Plan, the City of Sumner Shoreline Regulations, and local zoning. The development of this residential community would not require an adverse impact to wetlands, streams, or critical fish and wildlife habitats.

The project site has been managed and manipulated for the production of agricultural crops for several decades. As such, the project site provides only limited habitats for a limited number of wildlife species. In particular, the project site does <u>not</u> provide critical habitats for federally or state-listed endangered, threatened, or sensitive species of fish, wildlife, or plants.

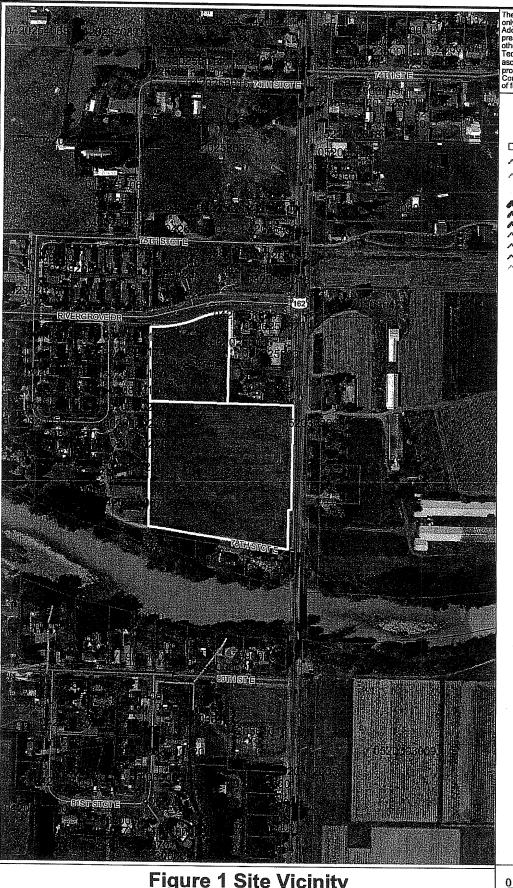
STANDARD OF CARE

This document has been completed by Habitat Technologies for use by Benjamin-Ryan Communities. Prior to extensive site planning, the findings provided within this document should be reviewed verified by City of Sumner and potentially other resource and permitting agencies. Habitat Technologies has provided professional services that are in accordance with the degree of care and skill generally accepted in the nature of the work accomplished. No other warranties are expressed or implied. Habitat Technologies is not responsible for design costs incurred before this document is approved by the appropriate resource and permitting agencies.

Bryan W. Peck Wetland Biologist

Thomas D. Deming, PWS Habitat Technologies

FIGURES



The map features are approximate and are intended only to provide an indication of said feature. Additional areas that have not been mapped may be present. This is not a survey. The orthophotos and other data may not align. Pierce County and Habitat Technologies assume no liability for variations ascertained by actual survey. All data is expressly provided AS IS and WITH ALL FAULTS. Pierce County and Habitat Technologies make no warranty of fitness for a particular purpose.

Map Legend

Highlighted Tax Parcels

- ☐ Tax Parcels
- Drainage Open Channels Roads
- Interstate

 Limited Access State Routes
- Other State Routes
- Major Arterial
- Collector

Local Access
County - 2011 - Ortho

Figure 1 Site Vicinity

Habitat Technologies

320 ft.

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REFERENCE LIST

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U.S. Department of Agriculture, Soils Conservation Service. Soils Survey of Pierce County Area Washington, February 1979.

Washington State Department of Ecology. 1997. Washington State Wetlands Identification and Delineation Manual. Publication Number 96-94

Washington State Department of Fisheries, Catalog of Washington Streams and Salmon Utilization, Volume 1., 1975.

APPENDIX A – CRITICAL HABITATS ASSESSMENT AND ASSOCIATED HABITAT MANAGEMENT PLAN, November 25, 2008

CRITICAL HABITATS ASSESSMENT AND ASSOCIATED HABITAT MANAGEMENT PLAN

PARCELS 0420254027 and 0420254702 CITY OF SUMNER, PIERCE COUNTY, WASHINGTON

prepared for

Larson and Associates
@ Mr. Bill Diamond
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Tacoma, Washington 98409

prepared by

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November 25, 2008

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INTRODUCTION

This report details the culmination of activities and onsite evaluations undertaken to complete an assessment of onsite and adjacent critical habitats as an element for the preparation of a Habitat Management Plan associated with the planning of the approximately 8-acre project site (parcels 0420254027 and 0420254702) located generally to the south of River Grove Drive and west of SR 162 East in the City of Sumner, Washington (part of Section 25, Township 20 North, Range 4 East, W.M.) (Figure 1). The evaluation of onsite and adjacent critical habitats is a vital element in the planning and selection of a site development action. The goal of this approach is to ensure that planned site development does not result in adverse environmental impacts.

DOCUMENT PURPOSE

This purpose of this document is to present the results of an onsite assessment of critical habitats within and immediately adjacent to the project site following the methods and procedures defined in the *Corps of Engineers Wetland Delineation Manual* (1987 Manual), the *Washington State Wetlands Identification and Delineation Manual* (Wash Manual), and City of Sumner Title 16. Drainage corridors were also assessed and identified in accordance with the criteria established by the City of Sumner and the State of Washington Department of Natural Resources (WDNR) Forest Practice Rules (WAC 222-16-030). This document was designed to accommodate site planning and potential regulatory actions. This document is suitable for submittal to federal, state, and local authorities for wetland and drainage corridor boundary verification, critical habitats assessment, and permitting actions.

PROJECT SITE DESCRIPTION

The project site was located in the City of Sumner, was approximately eight (8) acres in size, and composed of two (2) existing vacant parcels. The project site had undergone prior land use manipulations to include clearing, grading, production of agricultural crops, development of public and private roadways, and the development of adjacent properties. The majority of the project site appeared to have been managed for the production of agricultural crops for several decades.

Legal Descriptions:

Parcel 0420254027: Section 25 Township 20 Range 04 Quarter 44: COM ON E LI LOT 6 IN SEC 564.60 FT S OF S LI OF A H WOOLERY DLC TO POB TH S ALG E LI LOT 6 517.15 FT TO M/L OF PUYALLUP RIVER TH N 82 DEG 08 MIN W 544.80 FT TH N 441.95 FT TH E 540 FT TO POB EXC CO RD DED FEE.

Parcel 0420254702: Section 25 Township 20 Range 04 Quarter 44 : CURRENT USE RCW 84.34 AS AMEND AGRI 1978 1.94 AC AFN 2804888 BEG 242 FT S & 254 FT W

OF INTER OF E LI OF SEC & S LI OF A. H. WOOLERY DLC TH S 322.6 FT TH W 286 FT TH N 322.6 FT TH E TO BEG EXC THAT POR DEEDED.

Directions to Project Site: From SR 410 E eastbound exit to SR 162 E south bound. Continue south on SR 162 East southbound to River Grove Drive East. Turn west onto River Grove Drive East and continue to the first vacant parcel to the south of River Grove Drive East (fourth parcel off SR 162 East).

BACKGROUND INFORMATION

NATIONAL WETLAND INVENTORY

The National Wetland Inventory (NWI) mapping completed by the U.S. Fish and Wildlife Service was reviewed as a part of this assessment (Figure 2). This mapping resource did not identify any wetlands or drainage corridors within or adjacent to the project site. This mapping resource did identify the Puyallup River offsite to the south of the project site. The Puyallup River was identified as riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH); and riverine, lower perennial, unconsolidated shore, seasonally flooded (R2USC).

STATE OF WASHINGTON PRIORITY HABITATS AND SPECIES

The State of Washington Priority Habitats and Species (PHS) Mapping was reviewed as a part of this assessment (Figure 3). This mapping resource did not identify any priority habitats or species within of immediately adjacent to the project site.

STATE OF WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

The State of Washington Department of Fish and Wildlife mapping was reviewed as a part of this assessment (Figure 4). This mapping resource did not identify any streams within the project site. This mapping resource did identify the Puyallup River offsite to the south of the project site. The Puyallup River is noted to provide habitats for Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), chum salmon (*Oncorhynchus keta*), pink salmon (*Oncorhynchus gorbuscha*), sockeye salmon (*Oncorhynchus nerka*), steelhead/rainbow trout (*Oncorhynchus mykiss*), cutthroat trout (*Oncorhynchus clarkii*), native char (*Salvelinus spp.*), and mountain whitefish (*Prosopium spp.*); as well as a number of other non-salmonid fish species.

STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

The State of Washington Department of Natural Resources mapping was reviewed as a part of this assessment (Figure 5). This mapping resource did not identify any streams

within the project site. This mapping resource did identify the Puyallup River offsite to the south of the project site. The Puyallup River was identified as a WDNR Type S (shoreline) Water.

CITY OF SUMNER FISH AND WILDLIFE HABITAT INVENTORY

The City of Sumner Fish and Wildlife Habitat Inventory Mapping was reviewed as a part of this assessment. This mapping resource did not identify any fish and wildlife habitat areas within the project site. This mapping resource did identify the Puyallup River offsite to the south as noted in the mapping resources above. The Puyallup River was identified as a City of Sumner Type 1 Stream (Figure 6).

SOILS MAPPING

The soil mapping inventory completed by the Soils Conservation Service was reviewed as a part of this assessment (Figure 7). This mapping resource identified the soil in the northern portion of the project as sultan silt loam (248). The Sultan soil series is defined as moderately well drained, as formed in alluvium, and as not listed as "hydric."

This mapping resource identified the soils within the central portion of the project site as Briscot loam (6A). The Briscot soil series is defined as somewhat poorly drained, as formed in alluvium under hardwoods and conifers, and as listed as "hydric."

This mapping resource identified the soils within the southern portion of the project site as Puyallup fine sandy loam (31A). The Puyallup soil series is defined as well drained, as formed in sandy mixed alluvium, and as not listed as "hydric."

WASHINGTON STATE NATURAL HERITAGE PROGRAM

The Washington State Natural Heritage Program was reviewed as a part of this assessment. This resource did not identify any high quality, undisturbed wetland or a wetland that supports state Threatened, Endangered, or Sensitive plant species within the Section/Township/Range of the project site.

ONSITE ANALYSIS

CRITERIA FOR WETLAND, STREAM, AND HABITAT IDENTIFICATION

Wetlands are transitional areas between aquatic and upland habitats. In general terms, wetlands are lands where the extent and duration of saturation with water is the primary factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface (Cowardin, et al., 1979). Wetlands are generally defined within land use regulations as "areas that are inundated or saturated by

surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (1987 Manual).

Wetlands exhibit three essential characteristics, all of which must be present for an area to meet the established criteria within the Wash. Manual and the 1987 Manual. These essential characteristics are:

- **1. Hydrophytic Vegetation:** A predominance of plants that are typically adapted for life in saturated soils.
- **2. Hydric Soil:** A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper horizons.
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Fish and wildlife habitat areas are those areas identified as being of critical importance to maintenance of fish, wildlife, or plant species, including:

- A. Areas with which federally or state-listed endangered, threatened, or sensitive species of fish, wildlife, or plants have a primary association;
- B. Areas with habitats and species of local importance, including the following:
 - 1. Areas with which state-listed monitor or candidate species or federally listed candidate species have a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term;
 - Special habitat areas which may provide specific habitats which certain animals and plants require such as breeding habitat, winter range, and movement corridors;
- C. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and wildlife habitat;
- D. Waters of the state, including all water bodies classified by the Washington State Department of Natural Resources water typing classification system as detailed in WAC 222-16-031;
- E. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
- F. State natural area preserves and natural resource conservation areas.

Habitat Technologies completed a series of site visits during the November 2008. This series of assessments allowed for a formal assessment of potential critical habitats within and adjacent to the project site. In addition, Habitat Technologies has completed a variety of similar assessments for parcels within the general area of the project site.

FIELD OBSERVATION

The project site was accessed via River Grove Drive East which generally formed the northern boundary of the project site. Existing single-family homes were located adjacent western boundary of the project site and the northeastern portion of the project site. The remainder of the eastern project site was bound by SR 162 East. A private access road serving several single-family homes was located adjacent to the southern boundary. The majority of the project site had been utilized for the production of agricultural crops for several decades.

The project site was separated from the Puyallup River by a controlled levy system, a number of existing single family homesites, and a developed public roadway (78th Street Court East).

Soils

As documented at representative sample plots throughout the project site the soil had been managed and altered by prior and ongoing agricultural actions. The soil exhibited a texture of the surface soil ranging between loose loam, sandy loam; and fine sandy loam. Surface soil coloration ranged from dark brown (10YR 3/3) to very dark grayish brown (10YR 3/2). The subsoil exhibited a soil texture that ranged from sandy loam to fine sandy loam and a coloration ranging from dark brown (10YR 3/3) to dark grayish brown (10YR 4/2). The majority of the onsite soil appeared to drain moderately well to well and exhibited few redoximorphic features. None of the sample plots exhibited field characteristics typically associated with hydric soils. Field data are provided in Appendix A.

Hydrology

Onsite hydrology appeared to be the result of seasonal stormwater runoff from onsite and adjacent properties, topography, and soil characteristics. The project site appeared to drain moderately well to well and did not exhibit field indicators typically associated with wetland hydrology or the retention of seasonal stormwater runoff.

Vegetation

The project site generally exhibited a single plant community which had been altered and managed by prior land use actions. These prior land use actions had included clearing, grading, plowing, and the production of agricultural crops. Observed species included a scattering of dandelion (*Taraxacum officinale*), daisy (*Bellis perennis*), clover

(*Trifolium* spp.), hairy cats ear (*Hypochaeris radicata*), horsetail (*Equisetum arvense*), sheep sorrel (*Rumex acetosella*), geranium (*Geranium spp.*), smooth cats ear (*Hypochaeris glabra*), bedstraw (*Galium spp.*), reed canarygrass (*Phalaris arundinacea*), orchardgrass (*Dactylis glomerata*), fescue (*Festuca spp.*), velvet grass (*Holcus lanatus*), and bluegrass (*Poa spp.*). This plant association had become established following prior agricultural actions and was identified as non-hydrophytic in character (i.e. typical of uplands).

WETLAND AND DRAINAGE CORRIDOR DETERMINATION

Wetland determination was based on sample plots which contained hydrophytic vegetation, hydric soils, and wetland hydrology in accordance with the 1987 Manual and the Wash. Manual. Based on these methods **no** area within the project site was identified to exhibit all three of the established wetland criteria. **No** area within the project site was identified to exhibit characteristics of a stream. **One** (1) area within the vicinity of the project site was identified to exhibit characteristics of a City of Sumner Type 1 Stream.

STREAM	CLASSIFICATION (USFWS) (onsite)	WDNR STREAM CLASS	CITY OF SUMNER TYPE	BUFFER WIDTH
Puyallup River	R2SB	State Shoreline	1	100et*

^{*} Shoreline Residential Environment

Puyallup River: The Puyallup River Corridor was identified offsite to the south of the project site within a controlled levy system. Surface flow within the river was generally to the west within the vicinity of the project site. As noted within the mapping resources above the Puyallup River is documented to provide habitats for Chinook salmon, coho salmon, chum salmon, pink salmon, sockeye salmon, steelhead/rainbow trout, cutthroat trout, native char, and Mountain whitefish; as well as a number of other non-salmonid fish species. The Puyallup was identified by the City of Sumner as a Type 1 Stream (Shoreline of the State).

WILDLIFE OBSERVATIONS

The onsite assessment of wildlife species presence was also completed as a part of the onsite assessment of wetland and drainage corridor characteristics. It is unlikely based upon the existing site conditions, coupled with adjacent land uses, that species which require large areas of undisturbed habitat would exist onsite. Based on the plant communities, direct observations, and observations within adjacent parcels avian

species that were observed - or that would be expected within the project site - included red tailed hawk (*Buteo jamaicensis*), merlin (*Falco columbarius*), rock dove (*Columbia livia*), mourning dove (*Zenaida macroura*), tree swallow (*Tachycineta bicolor*), violet green swallow (*Tachycineta thallassina*), barn swallow (*Hirundo rustica*), song sparrow (*Melospiza melodia*), common raven (*Corvus coraw*), American crow (*Corvus brachynchos*), American robin (*Turdus migratorius*), dark eyed junco (*Junco hyemalis*), Steller's jay (*Cyanocitta stelleri*), starling (*Sturnus vulgaris*), American goldfinch (*Carduelis tristis*), black capped chickadee (*Parus atricapillus*), house sparrow (*Passer domesticus*), rufous hummingbird (*Selasphorus rufus*), Northern flicker (*Colaptes auratus*), killdeer (*Charadrius vociferus*), common mallard (*Anas platyrhynchos*), American widgeon (Anas americana), and Canadian goose (*Branta canadensis*). The majority of these avian species would be expected to feed throughout the project site. Many of these smaller species would also be expected to nest within the habitats provided by the adjacent properties.

Mammal species observed (directly or indirectly) - or expected within the project site - included coyote (*Canis latrans*), opossum (*Didelphis virginianus*), eastern cottontail (*Sylvilagus floridanus*), deer mouse (*Peromyscus maniculatus*), shrew (*Sorex* spp.), vole (*Microtus* spp.), Townsend mole (*Scapanus townsendii*), Norway rat (*Rattus norvegicus*), and bats (*Myotis* spp.).

The project site would also provide habitats for Pacific treefrog (*Hyla regilla*) and common garter snake (*Thamnophis sirtalis*). However, spawning and rearing opportunities for amphibians were extremely limited.

The project site was not identified to provide habitats for fish species.

The Puyallup River Corridor offsite to the south of the project site provides a wide range of habitats for aquatic and terrestrial species. These species include a variety of fish, waterfowl, shorebirds, and raptors. However, the majority of these species would not be expected to utilize the habitats provided by the project site.

STATE PRIORITY SPECIES

Game Species: A few species identified by the State of Washington as "Priority Species" were observed onsite or potentially may utilize the project site. The majority of these species are identified as "game species" and are regulated by the State of Washington through recreational hunting bag limits, harvest seasons, and harvest area restrictions. These species include mourning dove, common mallard, American widgeon, and Canada goose.

State Candidate: State Candidate species are presently under review by the State of Washington Department of Fish and Wildlife (WDFW) for possible listing as endangered, threatened, or sensitive. A single State Candidate species – merlin – may be present within the project site.

State Monitored: State Monitored species are native to Washington but require habitat that has limited availability, are indicators of environmental quality, require further assessment, have unresolved taxonomy, may be competing with other species of concern, or have significant popular appeal. A few State Monitored species may be present within the vicinity of the project site - great blue heron, green heron, osprey,—may potentially utilize the Puyallup River Corridor for feeding. No nesting areas were observed onsite or within the adjacent vicinity for these species.

State Threatened: State Threatened species means any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats. The project site did not provide critical habitats for State Threatened species. However, a State Threatened species - bald eagle (*Haliaeetus leucocephalus*), has been documented along the Puyallup River, the White River, and Lake Tapps. As such, this species may occasional overfly the area of the project site.

FEDERALLY LISTED SPECIES

A single, recently de-listed threatened species – bald eagle (*Haliaeetus leucocephalus*) – has been documented as feeding and nesting along the Puyallup River, the White River, and Lake Tapps. As such, this species may occasional overfly the area of the project site. However, the project site did not provide critical habitats for this species.

Two listed federally threatened species – Chinook salmon and native char – are documented to use the habitats within the Puyallup River. However, the project site did not provide critical habitats for these species.

REGULATORY CONSIDERATION

The proposed alteration of lands defined by various federal, state, and local authority rules and regulations as "wetlands," "streams," and "critical habitat areas" raises environmental concerns that are generally addressed in the development review process. These concerns center on the development's potential adverse impacts to the structure, function, value, and size of these areas. Such adverse impacts may include: a reduction in wildlife habitats, reduced surface water quality, reduced water retention, a reduced ground water recharge rate, reduced plant species diversity, and the reduction in the function and value of other associated wetland and non-wetland characteristics.

CITY OF SUMNER - Chapter 16.56 - WILDLIFE HABITAT AREA

As outlined by the City of Sumner the purpose of Chapter 16.56 is to regulated development and the use of land to preserve and protect areas of critical and endangered fish and wildlife habitat; and to conform with the Washington State Growth Management Act (16.56.030). Fish and wildlife habitat areas are those areas identified as being of critical importance to maintenance of fish, wildlife, or plant species, including:

- A Areas with which federally or state-listed endangered, threatened, or sensitive species of fish, wildlife, or plants have a primary association;
- B Areas with habitats and species of local importance, including the following:
 - Areas with which state-listed monitor or candidate species or federally listed candidate species have a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term;
 - 2. Special habitat areas which may provide specific habitats which certain animals and plants require such as breeding habitat, winter range, and movement corridors:
- C Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and wildlife habitat;
- D Waters of the state, including all water bodies classified by the Washington State Department of Natural Resources water typing classification system as detailed in WAC 222-16-031;
- E Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
- F State natural area preserves and natural resource conservation areas.

Conclusion: As defined by onsite assessment and a review of existing resource information the project site does not provide fish or wildlife habitat areas identified as being of critical importance to maintenance of fish, wildlife, or plant species. The project site has been modified and managed for the production of agricultural crops for several decades. In addition, the project site is surrounded by urban developments to include single family homesites, residential developments, and public roadways.

HABITAT MANAGEMENT PLANS (16.56.080)

The City of Sumner has identified that where a habitat assessment demonstrates to the satisfaction of the City that fish and wildlife habitat areas are not within 1,000 feet of the project site, then the development can proceed without further requirements for special fisheries or wildlife studies pursuant to this chapter. Otherwise, a habitat management plan shall be submitted. The purpose of the habitat management plan is to provide for the implementation, monitoring, and maintenance of permanent mitigation and restoration measures for fish and wildlife habitat. Prior to application for a permit the applicant may elect to waive

the habitat assessment and submit a habitat management plan if potential habitat is known to exist. The habitat management plan shall contain at a minimum:

- 1. A discussion of the project's effects on fish and wildlife habitat;
- 2. A discussion of any federal, state, or local special management recommendations which have been developed for species or habitats located on the site:
- 3. A discussion of measures to preserve existing habitats and restore habitats which were degraded prior to the proposed land use activity. Restoration plans shall include at a minimum the following:
 - a. Planting and soil specifications;
 - b. Success standards; and
 - c. Contingency plans;
- 4. A discussion of proposed measures which mitigate the impacts of the project;
- 5. An evaluation of the effectiveness of the proposed mitigation and restoration measures;
- 6. A discussion of ongoing management practices which will protect fish and wildlife habitat after the project site has been fully developed, including proposed monitoring and maintenance programs;
- 7. An assessment of habitat recommendations proposed by resource agencies and their applicability to the proposal; and
- 8. Any additional information necessary to determine the impacts of a proposal and mitigation of the impacts.

HABITAT MANAGEMENT PLAN DISCUSSION

As identified by onsite assessment the project site has been managed and manipulated for the production of agricultural crops for several decades. The entire project site is routinely plowed/tilled, seeded, and harvested as a part of these ongoing agricultural actions. The project site does not exhibit any areas defined as "wetland," "stream," or critical habitats. The project site is also bounded by existing residential developments and public roadways.

The Puyallup River is located more than 150 feet south of the project site. While this river corridor provides a variety of habitats for aquatic and terrestrial species these habitats are separated from the project site by existing residential developments and roadways. In addition, the Puyallup River is confined within a constructed level system

and as a result of these developments there is no connective corridor between the project site and the Puyallup River.

As defined by the City of Sumner the habitat management plan shall contain at a minimum:

1. A discussion of the project's effects on fish and wildlife habitat;

Discussion: The project site has been managed and manipulated for the production of agricultural crops for several decades. As such, the project site provides only limited habitats for a limited number of wildlife species. In particular, the project site does not provide critical habitats for federally or statelisted endangered, threatened, or sensitive species of fish, wildlife, or plants.

As such, the development of the project site would not exhibit a significant impact on fish and wildlife habitat.

2. A discussion of any federal, state, or local special management recommendations which have been developed for species or habitats located on the site:

Discussion: There are presently no federal, state, or local management recommendations for the types of habitats provided within the project site.

The City of Sumner has identified a special management recommendation for the Puyallup River within the City's Shoreline Management Regulations (16.14.040). These regulations require that permanent structures, storage, and hard surfaces shall be set back a minimum of 100 feet from the floodway or ordinary high water mark (whichever is further landward) within the "Shoreline Residential Environment."

3. A discussion of measures to preserve existing habitats and restore habitats which were degraded prior to the proposed land use activity.

Discussion: Since the development of the project site would not exhibit a significant impact on fish and wildlife habitat no measures to preserve existing habitats or restored habitats appear required.

4. A discussion of proposed measures which mitigate the impacts of the project;

Discussion: Since the development of the project site would not exhibit a significant impact on fish and wildlife habitat no measures to mitigate the impacts of this project appear required.

5. An evaluation of the effectiveness of the proposed mitigation and restoration measures:

Discussion: Since no measures to mitigate the impacts of this project appear required, no associated evaluation appears required.

 A discussion of ongoing management practices which will protect fish and wildlife habitat after the project site has been fully developed, including proposed monitoring and maintenance programs;

Discussion: Since no measures to mitigate the impacts of this project appear required, no associated monitoring or maintenance appears required.

7. An assessment of habitat recommendations proposed by resource agencies and their applicability to the proposal; and

Discussion: Since no measures to mitigate the impacts of this project appear required, no further assessment appears required.

8. Any additional information necessary to determine the impacts of a proposal and mitigation of the impacts.

Discussion: No additional information appears necessary to determine the impacts of the development of this project site on existing onsite habitats. The project site is located more than 150 feet away from the Puyallup River and separated from the Puyallup River Corridor by existing residential development roadways.

SELECTED DEVELOPMENT ACTION

The Selected Development Action for the project site focuses on the development of a residential community consistent with the City of Sumner Comprehensive Plan, the City of Sumner Shoreline Regulations, and local zoning. The development of this residential community would not require an adverse impact to wetlands, streams, or critical habitats.

The project site has been managed and manipulated for the production of agricultural crops for several decades. As such, the project site provides only limited habitats for a limited number of wildlife species. In particular, the project site does <u>not</u> provide critical habitats for federally or state-listed endangered, threatened, or sensitive species of fish, wildlife, or plants.

STANDARD OF CARE

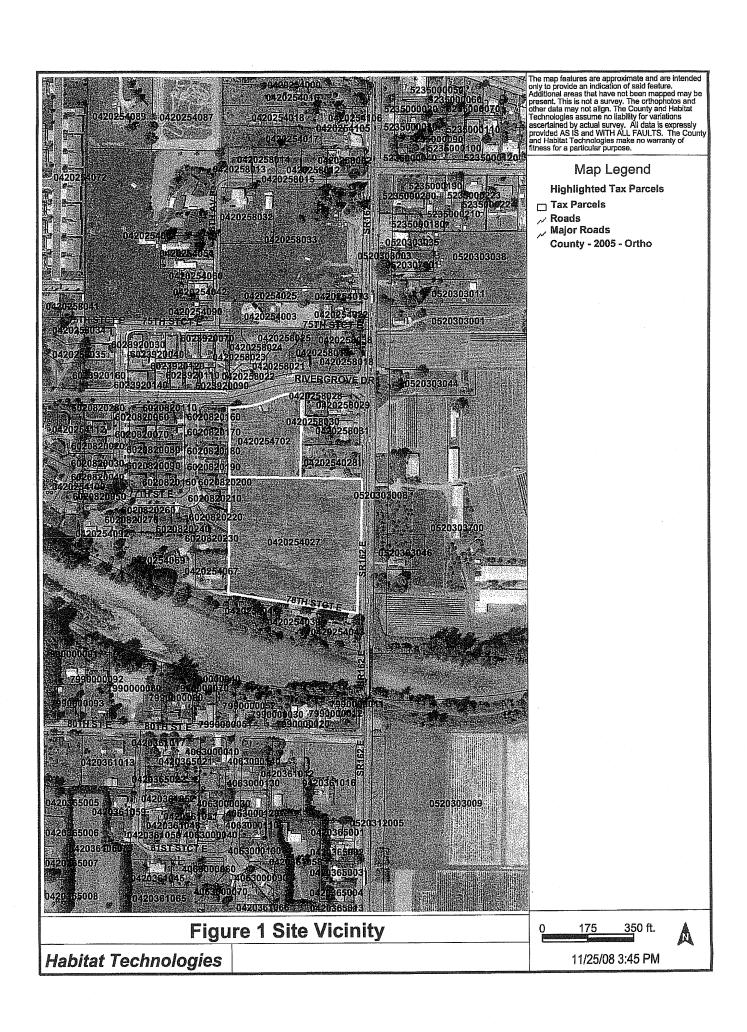
This wetland and drainage corridor evaluation and delineation report has been completed by Habitat Technologies for use by Larson and Associates. Prior to extensive site planning, this document should be reviewed and the wetland and drainage corridor boundaries, wetland and drainage corridor classifications, wetland and drainage corridor ratings, and proposed protective buffers should be reviewed and verified by City of Sumner and potentially other resource and permitting agencies. Habitat Technologies has provided professional services that are in accordance with the degree of care and skill generally accepted in the nature of the work accomplished. No other warranties are expressed or implied. Habitat Technologies is not responsible for design costs incurred before this document is approved by the appropriate resource and permitting agencies.

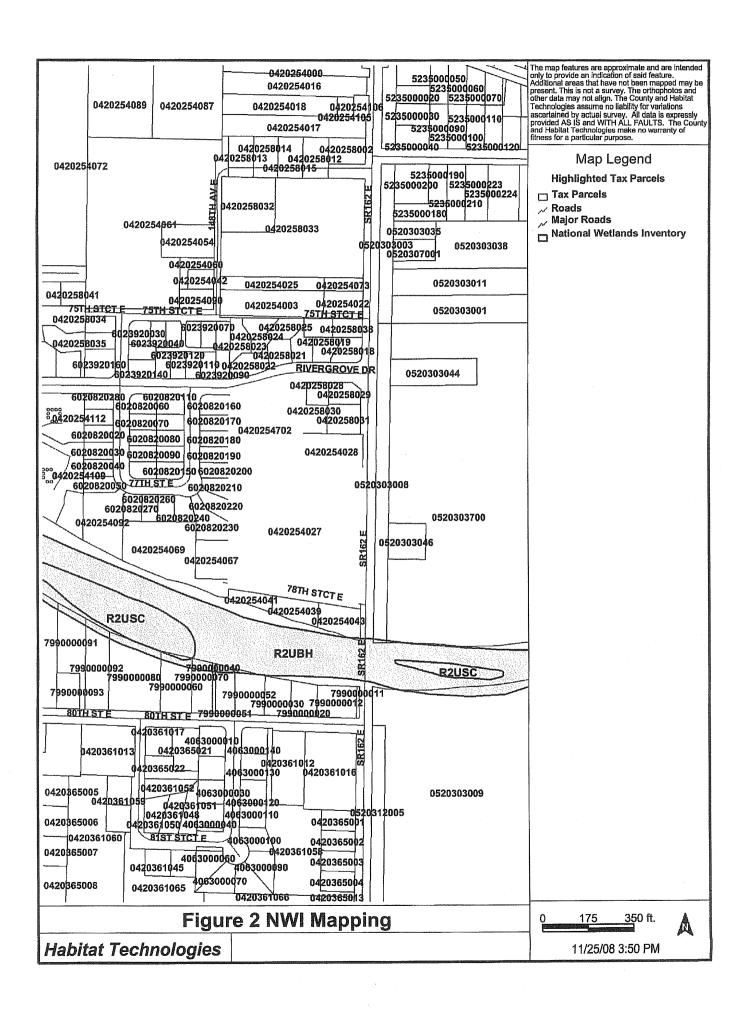
Bryan W. Peck Wetland Biologist

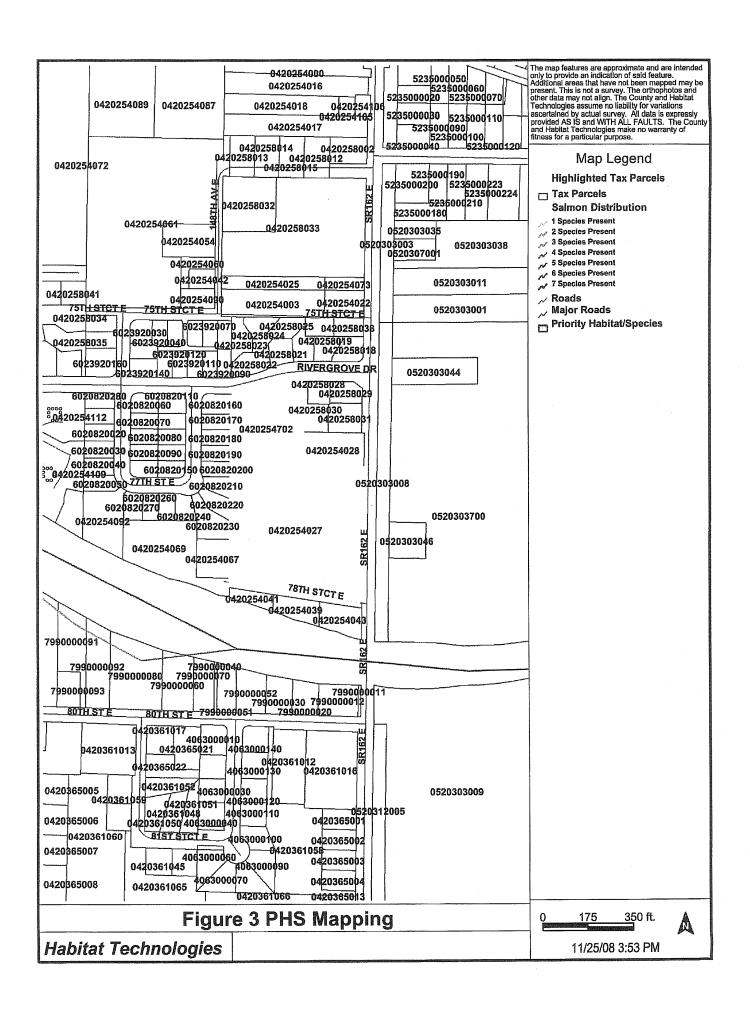
Thomas D. Deming

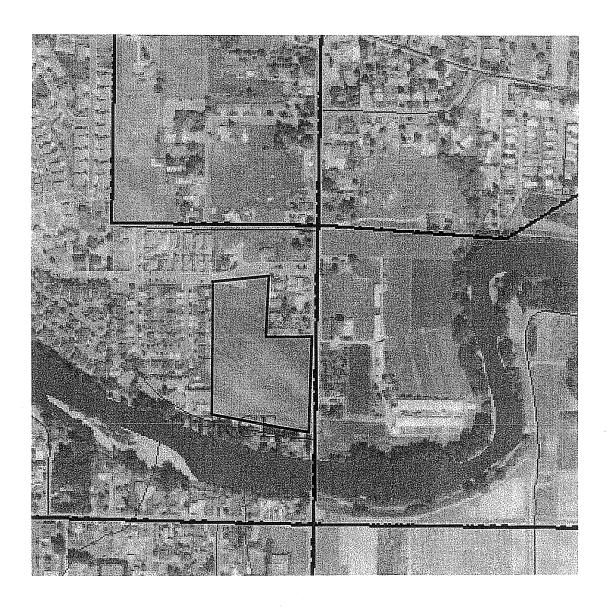
Certified Professional Wetland Scientist

FIGURES









PLSS Townships 🧳 RIVERS (1:24,000)

:: PLSS Sections

CITIES

- Major Cities
- Cities
- **₽** Towns

DNR Trans 24k

- ✓ Paved Road , Unpaved Road
- ,/ Road Surface Unknown
- .· Trail
- Railroad ببر
- ** Road Abandoned/Orphan

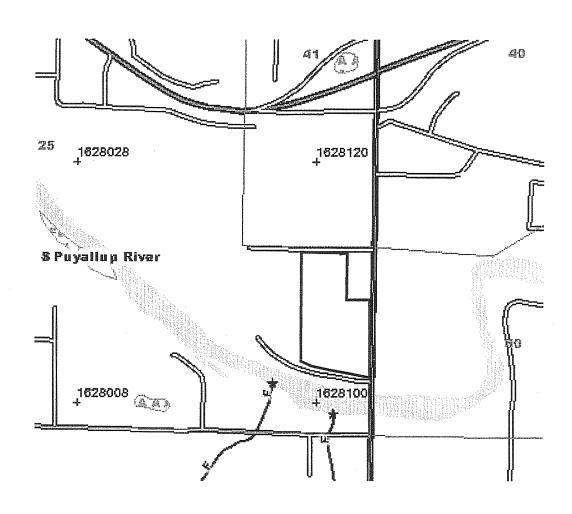


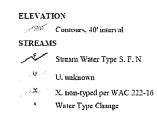
HABITAT **TECHNOLOGIES**

Figure 4 WDFW Mapping

WATERBODIES (1:24,000)

COUNTY





TRANSPORTATION WATER BODIES Open Water Unpaved Road / Surface Unknown Flats/Gravel Bars
Ice Ahandoned Road (not on Activity map) Adametorie Road (not on Activity map)

Orphaned Road (not on Activity map)

Trail

said-term

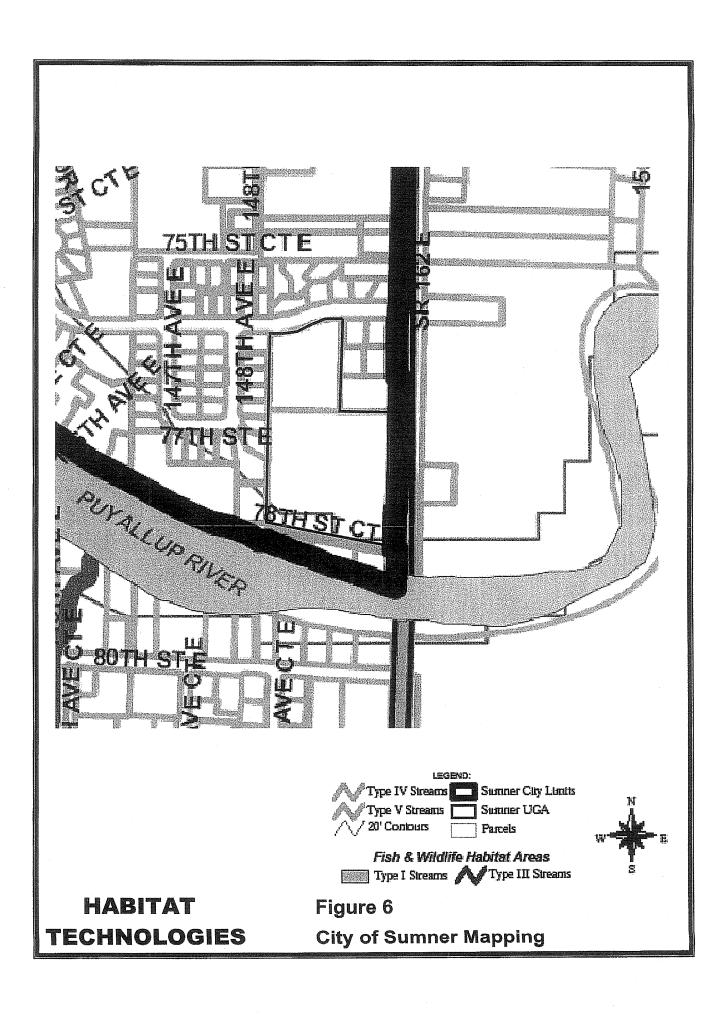
Railboad Man Made Feature Wet Area ??? " Unknown/Unclassified WETLANDS - Resource & Water Type Maps only ASEAR Type A

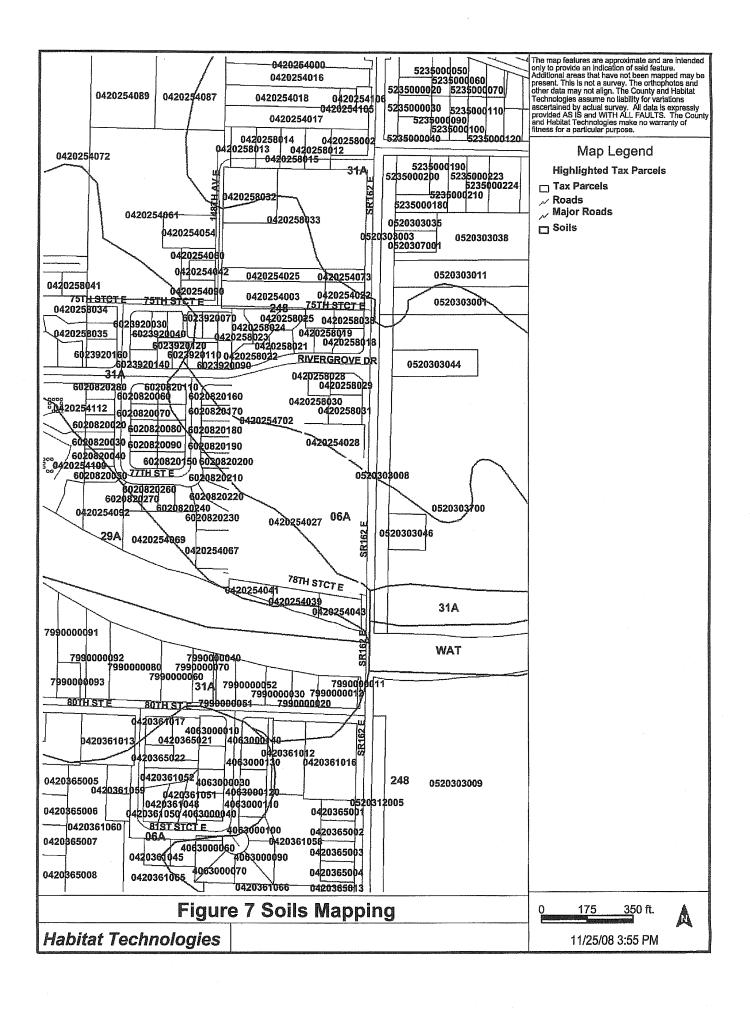


HABITAT **TECHNOLOGIES**

 $^{\rm QW}_{\rm QW}$ $^{\rm QW}_{\rm QW}$ other Figure 5 **WDNR** Mapping

For Fit Forested





REFERENCE LIST

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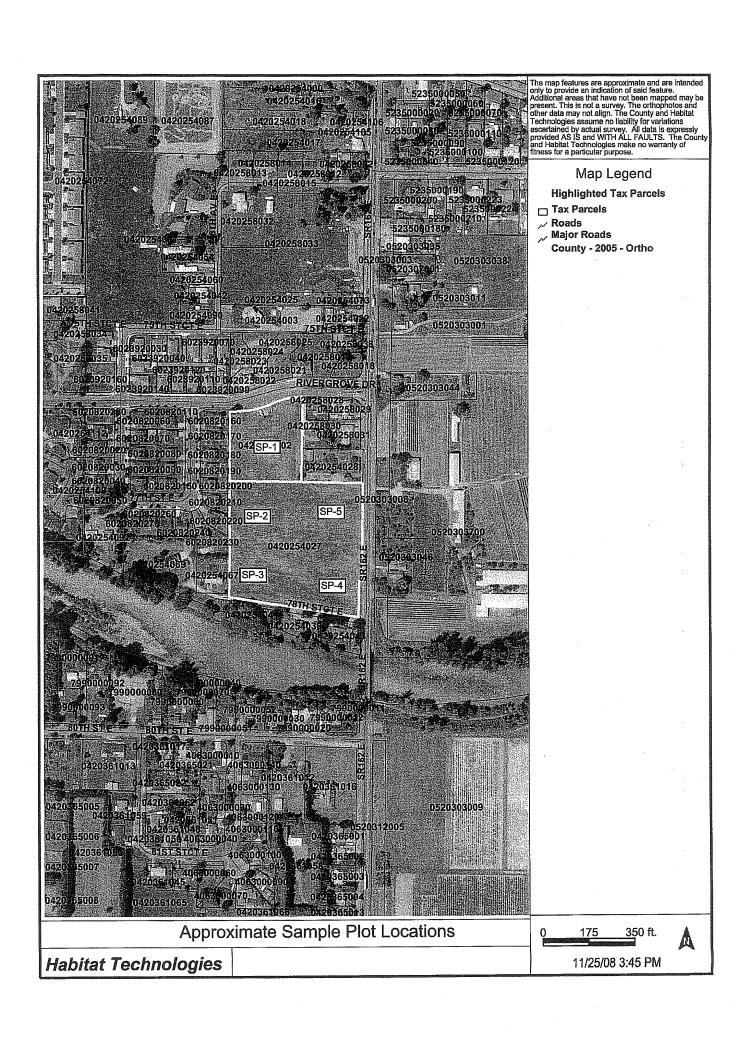
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APPENDIX A - FIELD DATA FORMS



Project Site	Parcels	s 042025	54027 ar	nd 042	20254702		Date:	18 NO\	/ 08
Applicant/Owner:							County:	Pierce	
Investigator:	Habitat '	Technolo	aies		***************************************		State:	Washing	gton
Have vegetation, soils the area a potential VEGETATION (Note that the control of	al Problem a lote those s	area?	served to h	YES YES ave mo	NO NO rphological ad Dominant Pla	Transe laptation	s to wetla	nds with a	an *) Indicator
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2. Trifolium praten	se	Н	FACU	<u> </u>					
3. Hypochaeris rac		Н	FACU	11.					
4. Dactylis glomera	ata	Н	FACU	12.					
5. Poa spp.		<u>H</u>		_ 13.					
6.				14.					
7. 8.				15. 16.					
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								·	

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Area a	appears t	o drain mode	rately wel	l followi	ng seasonal storn	n events			
white the same or an analysis of the latest and the		ice of wetland							

Project Site	Parcels	s 04202	54027 an	nd 042	20254702		Date:	18 NO\	/ 08		
Applicant/Owner:		***************************************		*******	**************************************		County:	Pierce			
Investigator:	Habitat '	Technolo	gies				State:	Washing	gton		
Have vegetation, soi Is the area a potentia	al Problem a	area? species ob s	served to ha	YES YES		Transe daptation	ıs to wetlaı				
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Hypochaeris rac		H	FACU	10. 11.	-						
4. Equisetum arve		H	FAC	12.							
5. Dactylis glomera		Н	FACU	13.							
6. Poa spp.		Н		14.							
7.				_ 15.							
8.				16.					<u> </u>		
Percent of Dominant species that are OBL, FACW, or FAC (except FAC-). Include species noted (*) as showing morphological adaptations to wetlands Describe Morphological Adaptations: Remarks: Northern portion of project site HYDROLOGY Recorded Data (Describe in Remarks): Wetland Hydrology Indicators:											
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FIELD OBSERVATION Depth of Surface Wa					Draii Oxid	-	erns in Wetl Channels i		2 "		
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Depth to Saturated S	Boil:	None			Othe	er (Explain	in Remarks	s)			
nonestable	Remarks: Onsite assessment during fall 2008 Soil appears to drain moderately well following seasonal storm events										
Delivery Annual Andreas (USF Editor) Annual Section (USF E	WW										
						- martin Mariana	and the second s	emineratura de la barrant de Aribera	the second secon		

Map Uni Taxonon	t Name: Suny (Subgroup)	ıltan silt loam)				Drainage Class: Moder Field Observations	-	
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	_							
Rema		M terthography, which Markey is a propriety and the control of the						ти при при при на 10 March (при при при при при при при при при при
Soil ap	pears to d	rain moderate	ly wel	<u>I follow</u>	ing seas	onal storm events		
Promir	<u>nent redox</u>	imorphic featu	ires N	OT pre	sent			
Field in	ndicators o	of hydric soil N	IOT pi	esent.				
COPPOSITION TO SERVICE AND ADDRESS OF THE PARTY OF THE PA								
WETL	AND DETE	RMINATION						
l ludao nh	utio \/osototio	n Drocento	VEO	B. 11 C				
	ytic Vegetatio	in Present?	YES	NO				
-	oils Present? Hydrology Pr	recent?	YES YES	NO	le thie	Sampling Point within a We	tland?	
vveuanu	riyarology Fi	esenti	YES	NO	15 (1115	Sampling Fourt within a vve	tiana :	NO
Rema	rks:							A CONTRACTOR OF THE CONTRACTOR
WET	LAND C	RITERIA N	OT N	AET	`			
North	ern porti	on of projec	t site					
Area	appears 1	o drain mod	lerate	ly wel	l follow	ing seasonal storr	n events	
No fie	eld evider	nce of wetlar	nd hy	drolog	y patte	rns		
						And the second s		
			en in Malanamaan and an					

Project Site	Parcels	042025	54027 ar	nd 042	20254702		Date:	18 NO\	/ 08
Applicant/Owner:							County:	Pierce	
Investigator:	Habitat Te	chnolo	aies		**************************************		State:	Washing	gton
Have vegetation, soils the area a potential VEGETATION (N Dominant Plant Spec	ils, or hydrolog al Problem are	y been dis	sturbed?	YES YES	NO NO r phological ac Dominant Pla		ct ID: s to wetla	nds with a	an *) Indicator
1. Taraxacum offic		Н	FACU	9.					
2. Hypochaeris rac	dicata	Н	FACU	10.					
3. Poa spp.		H		11.					
4.				12.					
5.		·····		13.		· · · · · · · · · · · · · · · · · · ·			
6.			**************************************	14.					
7. 8.				15. 16.					
Percent of Dominant (except FAC-). Inclu- morphological adapt Describe Morpholog	de species not ations to wetla	ted (*) as ands		AC			0%		
	hwestern	portio	n of pro	ject s	ite	· · · · · · · · · · · · · · · · · · ·	, and the second		
HYDROLOGY Recorded Data	(Describe in I	Remarke)			Wetland Hy	vdrology Ir	ndicators:		v .
PRODUCE AND ADDRESS OF THE PRODUCE O	, Lake, or Tide	•	•		Inund		raioatoro.		
Anna de la Constantina del Constantina de la Con	hotograph	ougo			president and the second	ated in up	per 12"		
Other					hatti daning managamana	r Marks	•		
No Recorded D	Data Available				Drift l	Lines			
BURGING CHARMAC & CO.					Sedir	nent Depo	sits		
FIELD OBSERVATI	ONS:				Drain	age Patte	rns in Wet	lands	
					Oxidi	zed Root	Channels i	in Upper 1:	2 "
Depth of Surface Wa	ater:				Wate	er-Stained	Leaves		
Depth to Free Water	r Pit:	None			Local	I Soil Surv	ey Data		
Depth to Saturated S	Soil:	None			Othe	r (Explain	in Remark	(S)	
E A AND E IN COLUMN SERVICES CO.	nsite asses	Christian Ivanian and Anthropic Constitution		CONTRACTOR OF THE PROPERTY OF	MANAGEMENT OF THE PROPERTY OF				
Soil appears to	drain mode	erately v	well follow	wing s	easonal sto	orm eve	nts		
Annual Control of Cont				San Carlot				way no para manana na katalogi da katalogi da katal	
the content of the co									

•	riscot loam			Drainage Class: Somewhat poorly				
Taxonomy (Subgroup))			Field Observations Confirm Mapped Type	YES	NO		
Profile Description:				Commit Mapped Type	ILO	NO		
Depth Horizon	Matrix Color		Colors	Mottle		Concretions,		
(inches)	(Munsell Moist)	(Munse	ell Moist)	Abundance/Contrast	Rhizos	pheres, etc.		
0-16	10YR 3/3	None			Sandy loam			
16-22	10YR 4/2	None			Very sandy	CANAGES STREET, SOME STREET, SO		
Hydric Soil Indicators								
Enzysteg mannest mannest militales								
Histoso			F	Concretions	nakim Cumbana			
Histic E Sulfidic			box	High Organic Conte Organic Streaking	nt in Surface	Layei		
Exploration and the second	e Aquic Moisture Re	gime	-	Listed on Local Hyd	ric Soils List			
Spinishing Control of the Control of	ng Conditions	5	-	Listed on National F		st		
	or Low Chroma Colo	ors	;zz	Other (Explain in Re	emarks)			
Remarks: :								
			THE RESERVE THE PARTY OF THE PA	onal storm events				
Prominent redox	DESCRIPTION OF THE PROPERTY OF	Company of the Compan	the fire and the second of the					
Field indicators	<u>of hydric soil NC</u>)T present	d MR					
WETLAND DETE	DRAINIATIANI							
AAEITWIAD DEIE	:VIAIIIAW I IOIA							
Hydrophytic Vegetation	on Present?	YES NO						
Hydric Soils Present?	•	YES NO						
Wetland Hydrology P	resent?	YES NO	Is this	Sampling Point within a Wet	tland?	NO		
Remarks:								
WETLAND C	RITERIA NO	TMET		у такуу тануу на				
Southwestern					and the state of t			
	The same of the sa	THE STATE OF THE S		ring seasonal storn	n events			
No field evide		The second secon						
140 HOIN GAINE	iive of acciding	a ny an or	A) harre		ala Chini indipi da kamana a sa ana dia dikita (1939-1944) a sa ana ana ana ana ana ana ana ana an	·		

Project Site	Parcels 04	20254	027 an	d 042	20254702		Date:	18 NO	V 08
Applicant/Owner:							County:	Pierce	
Investigator:	Habitat Tech	nologi	es		***************************************		State:	Washin	gton
Have vegetation, soils the area a potential VEGETATION (N Dominant Plant Spe	al Problem area? Note those specions Str	es obser atum <u>lr</u>	ved to ha		NO NO rphological ad Dominant Plar		t IĎ: s to wetl a	ands with a	an *) Indicator
Taraxacum office Hypochaeris race		H H	FACU FACU	9. 10.					
3. Dactylis glomer		<u>п</u> Н	FACU	10.					
4. Phalaris arundir		H	FACW	12.		· · · · · · · · · · · · · · · · · · ·			
5. Poa spp.		H		13.	A A A A A A A A A A A A A A A A A A A				
6.				14.					
7.				15.					
8.				16.					<u> </u>
HYDROLOGY	tations to wetlands	rtion (ect si	te Wetland Hy		5%		
ENVIOLED STATE STA	, Lake, or Tide Ga	•			Inunda				
Aerial F	Photograph				Satura	ated in upp	oer 12"		
Other					Water	Marks			
No Recorded D	Data Available	×			Drift Li				
FIELD OBSERVATI	ONS:				Draina	ent Depos age Patter zed Root C	ns in We	tlands in Upper 1:	2 "
Depth of Surface Wa	ater:				AND DESCRIPTION OF THE PARTY OF	-Stained I			
Depth to Free Water	r Pit: No	one			Local	Soil Surve	ey Data		
Depth to Saturated S	Soil: No	one			Other	(Explain i	n Remarl	ks)	
Remarks: O	nsite assessr drain modera	V-C			Control of the Contro	rm ever	nts		

Map Unit	t Name: Pu ny (Subgroup)	ıyallup fine sandy lo)	oam			Drainage Class: Well dr Field Observations	rained	
						Confirm Mapped Type	YES	NO
Depth (inches)	escription: Horizon	Matrix Color (Munsell Moist)		Mottle Co (Munsell N		Mottle Abundance/Contrast		, Concretions spheres, etc.
0-18		10YR 3/2	N	lone			Very Sandy	loam
Hydric Sc	oil Indicators:	table continues and the second	Ericopoly					
riyunc se	on mulcators.							
\$500 AMADES CONTRACTOR	Histosol				STANDARDS	Concretions		
gradina (di seco	Histic Ep Sulfidic C					High Organic Conte	ent in Surface	Layer
Neg unanciation (Control	PORTONIA P	Aquic Moisture Re	edime		Programma	Organic Streaking Listed on Local Hyd	ric Soile Liet	
And the second		g Conditions	90		physingens	Listed on National F		st
Encoded and the second	Gleyed o	r Low Chroma Col	ors		A100000	Other (Explain in Re		
Remai	rks: :							
Soil ap	pears to di	rain moderatel	y wel	l followir	ng seasc	nal storm events		
		morphic featu					**************************************	and the state of t
Field in	idicators o	f hydric soil N	OT pr	esent.				
WETLA	ND DETER	RMINATION						
Hydrophy	rtic Vegetation	Present?	YES	NO				
-	oils Present?		YES	NO				
Wetland I	Hydrology Pre	esent?	YES	NO	Is this S	ampling Point within a Wet	tland?	NO
Remai	rks:							
WETL	AND CF	RITERIA NO)T N					armonin entire of extra of the manuschina de
South	western _l	portion of pr	oject	t site				RESIDENCE STEERS (NO MANAGEM & ELECTRICAL STATES (NO MANAGEM)
Area a	ppears to	o drain mode	erate	ly well	followii	ng seasonal storm	ı events	helit (172,000 50 Neben halin premin menerusakan sasahan cebuah
	CALIFORNIA PROPERTY AND ADDRESS OF THE PROPERTY OF THE PROPERT	ce of wetlan	Constructive and Contract of the		THE RESERVE OF THE PERSON NAMED IN COLUMN			
			and the same of th		Otto Tonto i in a fina de la companya de la company			
HOOSTINE PROPERTY CONTINUES AND			Water Street Control of the Control	(Maria Annia) bassa a di manana a manana				

Pro	oject Site	Parcels	s 04202	54027 ar	d 04:	20254702		Date:	18 NO	V 08
Ар	plicant/Owner:			PAGE GAL		EVALVE! VA	· · · · · · · · · · · · · · · · · · ·	County:	Pierce	
Inv	estigator:	Habitat	Technolo	aies				State:	Washin	aton
ls t VE	ve vegetation, so he area a potenti	ils, or hydrol al Problem a	ogy been di area? species obs	sturbed?	YES YES	NO NO phological a	Transe daptation	s to wetla	ands with a	an *)
<u>Do</u> 1.	minant Plant Spe Taraxacum office		<u>Stratum</u>	Indicator	10	Dominant Pla	ant Specie	<u>s</u>	<u>Stratum</u>	<u>Indicator</u>
2.	Hypochaeris rad		<u>Н</u>	FACU FACU	9. 10.					
3.	Dactylis glomer		Н	FACU	10.				***************************************	
4.	Geranium molle		Н		12.					
5.	Poa spp.		Н		13.					
6.					14.					
7.					15.					ļ
8.					16.			<u></u>]		<u> </u>
(ex mo De: Rei		de species r ations to we	noted (*) as tlands ions:	showing				0%		
	DROLOGY									
resentante de 1900	Recorded Data	*	,	•		Wetland H		ndicators:		
		, Lake, or Ti	de Gage			Inund		408		
	Other	hotograph				NO OTHER DESIGNATION OF THE PERSON OF THE PE	rated in up er Marks	per 12		
	No Recorded D)ata Availahi	la				Lines			
		Jala Avallab				CANAL CONTROL OF THE PARTY OF T	ment Depo	eite		
FIE	LD OBSERVATION	ONS:				And the second second second second	nage Patte		tlands	
							-		in Upper 12	2 "
De	oth of Surface Wa	ater:				Carry powers a supplied	er-Stained		••	
De	oth to Free Water	Pit:	None			Loca	l Soil Surv	ey Data		
De	oth to Saturated S	Soil:	None			Othe	r (Explain	in Remark	(s)	
Re	emarks: O	nsite ass	essment	during fal	1 2008			en state of the st		
So	il appears to	drain mo	derately v	vell follov	ving s	easonal st	orm eve	nts		
		A CONTRACTOR OF THE CONTRACTOR	- Honoran Hall Philade			, Addition of the second of th	None and the second sec		The second secon	

Map Unit	: Name: Bri ny (Subgroup)	iscot loam				Drainage Class: Somev Field Observations	vhat poorly	
		•				Confirm Mapped Type	YES	NO
Depth (inches)	escription: Horizon	Matrix Color (Munsell Moist)		Mottle Co (Munsell M		Mottle Abundance/Contrast	Texture Rhizo	e, Concretions, espheres, etc.
0-16	Entropy and the second	10YR 3/2		lone			Sandy loar	·
16-22		10YR 4/2		lone			Very Sand	Manager and the second of the
Picker and Control of the Control of	Name and the state of the state		a estatum		and the second			
Hydric Sc	oil Indicators:	•						
Bill to characteristic strategy	Histosol					Concretions		
	Histic Epi	ipedon			postanti	High Organic Conte	nt in Surface	Layer
\$46 minutes	Sulfidic C					Organic Streaking		•
\$2.000 (\$1.000	Participation of the Control of the	Aquic Moisture Re	gime		Non-section 1	Listed on Local Hyd		
and in the environment and added	Contract Co.	r Conditions r Low Chroma Colo	ro		\$70330a4see	Listed on National F	-	ist
STOCK AND LONG AND	Oleyed Ol	LOW CITOTIA COIC	115		ETTA Contributions	Other (Explain in Re	emarks)	
Remar								
						nal storm events		
		morphic featur f hydric soil NC			nt			
	dicatora o	i ilyanic son iac	<u> </u>	eseiit.	o to the same of t			
WETLA	ND DETER	RMINATION						
Hydrophy	tic Vegetation	Present?	/ES	NO				
Hydric So	ils Present?		/ES	NO				
Wetland I	Hydrology Pre	esent?	/ES	NO	Is this S	ampling Point within a Wet	land?	NO
Remar	'ke'							
	100 miles - 100 mi	RITERIA NO	TN					
terror de la companya		of project s	- Charles and the Control of the Con	ed Reduction				
		The same of the sa	NEW MORNING CONTRACTOR	lv well f	followin	ng seasonal storm	events	CHURCH CONTROL OF THE
		ce of wetland						
					1			

ATTACHMENT - SITE PLAN

APPENDIX B - 2013 FIELD DATA

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Parcels 0420254702 and -4027		City/C	ounty	: Sumner,	Pierce	Sampling Date: 14 MAR 2013
Applicant/Owner:						
Investigator(s): Habitat Technologies				Section, To	ownship, Range: S25, T20	. R4E
Landform (hillslope, terrace, etc.):		_ Local	relie	f (concave	, convex, none):	Slone (%):
Subregion (LRR): A	_ Lat:			·	Long:	Datum:
Soil Map Unit Name: Sultan silt loam					NWI classifica	tion:
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Ye	s 🖂	No □ (I	If no. explain in Remarks)	
Are Vegetation, Soil, or Hydrology sign					ormal Circumstances" pres	ent? Yes⊠ No□
Are Vegetation, Soil, or Hydrology natu					ed, explain any answers in	
SUMMARY OF FINDINGS - Attach site map						
				3 6011111		important reatures, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒			ls the	e Sampled	I Area	
Hydric Soil Present? Yes ☐ No ☑ Wetland Hydrology Present? Yes ☐ No ☑			withi	n a Wetlar	nd? Yes ☐ No	o 🛛
Remarks: Northern portion of project site.				****		
person or project cite.						
VEGETATION – Use scientific names of plant	ts.					
	Absolute	Domi	nant	Indicator	Dominance Test works	hoof:
Tree Stratum (Plot size: 15ft radius)	% Cover	Spec	ies?	Status	Number of Dominant Sp	
1					That Are OBL, FACW, or	
2					Total Number of Domina	int
3					Species Across All Strata	
4					Percent of Dominant Spe	ecies
Sapling/Shrub Stratum (Plot size: 15ft radius)	0	= Tol	tal Co	over		r FAC: <u>0</u> (A/B)
1					Prevalence Index work	sheet:
2					Total % Cover of:	Multiply by:
3.						x 1 =
4						x 2 =
5						x 3 =
Herb Stratum (Plot size: 15ft radius)	0	= Tot	al Co	over	1	x 4 =
1 Dactylis glomerata	<u>25</u>			FACIL	UPL species	
Festuca arundinacea	<u>25</u> <u>15</u>			FACU_	Column Totals:	(A) (B)
3. <u>Taraxacum officinale</u>					Prevalence Index	= B/A =
4. Trifolium spp.	30				Hydrophytic Vegetation	
5. Geranium molle					Rapid Test for Hydro	
6					☐ Dominance Test is >	50%
7					☐ Prevalence Index is :	≤3.0 ¹
8					☐ Morphological Adapt	ations ¹ (Provide supporting
9			<u> </u>		□ Wetland Non-Vascul	or on a separate sheet)
10				No.		ar Plants nytic Vegetation ¹ (Explain)
11		·	_			and wetland hydrology must
Woody Vine Stratum (Plot size: 15ft radius)	***************************************	= Tot	al Co	ver	be present, unless distur	
1						
2	***************************************				Hydrophytic	
	n	- Tot			Vegetation Present? Yes	□ No ⊠
% Bare Ground in Herb Stratum						
Remarks:						
						į į

Sampling Point: SP-	1
---------------------	---

Frome Description: (Describe to the	depth needed to document the indicator	or confirm t	he absence of indicators.)
Depth Matrix	Redox Features		
(inches) Color (moist) %	Color (moist) % Type ¹	_Loc ²	Texture Remarks
<u>0-18</u> <u>10YR 3/3</u>		ı	
			·

¹ Type: C=Concentration, D=Depletion, F	RM=Reduced Matrix, CS=Covered or Coat	ed Sand Grain	ns. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to	all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	Sandy Redox (S5)		☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except	MLRA 1)	☐ Very Shallow Dark Surface (TF12)
☐ Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		☐ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		
☐ Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and
☐ Sandy Mucky Mineral (S1) ☐ Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)		wetland hydrology must be present,
Restrictive Layer (if present):	Redox Depressions (F8)		unless disturbed or problematic.
Type:			
Depth (inches):			
			Hydric Soil Present? Yes ☐ No ⊠
Remarks:	•		
HYDPOLOGY			
HYDROLOGY			
Wetland Hydrology Indicators:			
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ			Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ ☐ Surface Water (A1)	ired; check all that apply) ☐ Water-Stained Leaves (B9) (e	xcept MLRA	
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2)	☐ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B)	xcept MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3)	 Water-Stained Leaves (B9) (e1, 2, 4A, and 4B) Salt Crust (B11)	xcept MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestions) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	☐ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B)	xcept MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestions) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) 		 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along 	Living Roots	 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along □ Presence of Reduced Iron (C4) 	Living Roots	 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along □ Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tille 	Living Roots l) d Soils (C6)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (C9) (C3) ☐ Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestions) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (e	Living Roots l) d Soils (C6)	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery		Living Roots l) d Soils (C6)	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface		Living Roots l) d Soils (C6)	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery		Living Roots l) d Soils (C6)	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requication Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface		Living Roots l) d Soils (C6)	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	□ Water-Stained Leaves (B9) (e	Living Roots l) d Soils (C6)	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requication of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present?		Living Roots l) d Soils (C6) 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)		Living Roots Soils (C6) LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes □ No ⊠
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)		Living Roots Soils (C6) LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes □ No ⊠
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge,		Living Roots Soils (C6) LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes □ No ⊠
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)		Living Roots Soils (C6) LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes □ No ⊠
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge,		Living Roots Soils (C6) LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes □ No ⊠
Wetland Hydrology Indicators: Primary Indicators (minimum of one requications) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge,		Living Roots Soils (C6) LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes □ No ⊠

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Parcels 0420254702 and -4027		City/0	County	: Sumner,	Pierce	Sampling Date:14 MAR 2013
Applicant/Owner:						
a sa), R4E
Landform (hillslope, terrace, etc.):		Loca	al relie	of (concave	Convey none):	Close (0()
Subregion (LRR): A	Lat:			(00)100,70	Long:	Slope (%):
						ation:
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology sign						
Are Vegetation, Soil, or Hydrology natu					ormal Circumstances" pres	
					led, explain any answers in	
SUMMARY OF FINDINGS – Attach site map	showing	sam	pline	g point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☒			le th	e Sampled	i Aroo	
Hydric Soil Present? Yes ☐ No ☒				in a Wetlar		io ⊠
Wetland Hydrology Present? Yes ☐ No ☒					103 [] N	• <u> </u>
Remarks: Central western portion of the project site. Plow	ed and tilled	i.				
VECETATION Use salesticing to		***				
VEGETATION – Use scientific names of plant						
Tree Stratum (Plot size: 15ft radius)	Absolute % Cover			Indicator Status	Dominance Test works	
1					Number of Dominant Sp That Are OBL, FACW, o	
2						,
3.					Total Number of Domina Species Across All Strat	
4						
Sapling/Shrub Stratum (Plot size: 15ft radius)	0	= To	otal Co	over	Percent of Dominant Sp That Are OBL, FACW, o	ecies or FAC: <u>0</u> (A/B)
1					Prevalence Index work	•
2.	-	-			Total % Cover of:	
3.					The state of the s	x1 =
4						x 2 =
5					ł	x3=
	0				1	x 4 =
Herb Stratum (Plot size: 15ft radius)					1	x 5 =
Festuca arundinacea Mentha arvensis	10			FAC	Column Totals:	(A) (B)
Mentha arvensis Cirsium vulgare				FACU	Prevalence Index	= B/A =
4. <u>Vicia americana.</u>				FACU	Hydrophytic Vegetation	
5. Geranium molle					☐ Rapid Test for Hydro	
6					☐ Dominance Test is >	·
7		-			☐ Prevalence Index is	≤3.0 ¹
8					☐ Morphological Adapt	tations ¹ (Provide supporting
9					į .	or on a separate sheet)
10					☐ Wetland Non-Vascu	
11						nytic Vegetation ¹ (Explain) and wetland hydrology must
Woody Vine Stratum (Plot size: 15ft radius)	35	= To	otal Co	over	be present, unless distu	
1						
2					Hydrophytic	
	0		otal Co		Vegetation Present? Yes	No ⊠
% Bare Ground in Herb Stratum 65					103	K_N
Remarks:						

Profile Desc	ription: (Describ	e to the c	lepth no	eded to docu	ment the i	indicator	or confirm	m the absence of indicators.)
Depth	Matrix		_	Redo	ox Feature			
(inches)	Color (moist)	%	Colc	or (moist)	%	Type ¹	_Loc ²	Texture Remarks
0-16	10YR 3/3	100						
16-24	10YR 4/2	98	10Y	R 3/4	2	CS	M	fs
		<u> </u>					101	

					-			
	oncentration, D=D						ed Sand G	
1	Indicators: (Appl	icable to	all LRR	s, unless othe	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :
Histosol	. ,			Sandy Redox (-			☐ 2 cm Muck (A10)
l *	ipedon (A2)			Stripped Matrix				Red Parent Material (TF2)
☐ Black His				_oamy Mucky I			t MLRA 1)	· · · · · · · · · · · · · · · · · · ·
	n Sulfide (A4) I Below Dark Surfa	oo (A11)		Loamy Gleyed)		Other (Explain in Remarks)
1	rk Surface (A12)	ice (ATT)		Depleted Matrix Redox Dark Su				³ Indicators of hydrophytic vegetation and
	lucky Mineral (S1)			Depleted Dark		7)		wetland hydrology must be present,
	leyed Matrix (S4)			Redox Depress	•	• ,		unless disturbed or problematic.
	Layer (if present):							
Type:				_				
Depth (in	ches):							Hydric Soil Present? Yes ☐ No ☒
Remarks:							A. J	17,4170 00111 100 E3
HYDROLO	GY							
Wetland Hy	drology Indicator	s:		-				
1	cators (minimum o		ired: ch	eck all that ann	lv)			Secondary Indicators (2 or more required)
☐ Surface				☐ Water-Sta		as (RQ) /e	avcent Mi	
	ter Table (A2)				A, and 4B		SVOCAT BIE	4A. and 4B)
☐ Saturation				☐ Salt Crust	•	,		☐ Drainage Patterns (B10)
l	arks (B1)			☐ Aquatic In		s (B13)		☐ Dry-Season Water Table (C2)
	nt Deposits (B2)			☐ Hydrogen		•		Saturation Visible on Aerial Imagery (C9)
	osits (B3)					. ,	Living Roo	
·	it or Crust (B4)			☐ Presence				☐ Shallow Aquitard (D3)
	osits (B5)						ed Soils (C	
1	Soil Cracks (B6)						01) (LRR A	• •
1	on Visible on Aeria	l Imagery	(B7)	Other (Ex		•	, (Frost-Heave Hummocks (D7)
1	Vegetated Conca			, ,		,		_ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Field Obser	vations:		·					
Surface Wat	er Present?	Yes 🗌	No ⊠	Depth (inche	es):			
Water Table	Present?	Yes 🗌	No ⊠	Depth (inche	•			
Saturation P		Yes 🗌	No ⊠	Depth (inche			Wot	tland Hydrology Present? Yes 🗌 No 🛛
(includes ca	pillary fringe)	-			-			•
Describe Re	corded Data (strea	am gauge,	monito	ring well, aerial	photos, p	revious ir	spections)), if available:
Remarks:								
				**.				
				14				

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Parcels 0420254702 and -4027		_City/County: <u>Sumner</u>	Pierce	_ Sampling Date: 14 MAR 2013
Applicant/Owner:				
Investigator(s): Habitat Technologies				
Landform (hillslope, terrace, etc.):		_ Local relief (concave	e, convex, none):	Slope (%):
Subregion (LRR): A	Lat:		Long:	Datum:
Soil Map Unit Name: Puyallup fine sandy loam			NWI classific	ation:
Are climatic / hydrologic conditions on the site typical for t	his time of ye	ar? Yes⊠ No 🔲	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology s			lormal Circumstances" pre	
Are Vegetation, Soil, or Hydrology na			ded, explain any answers	
SUMMARY OF FINDINGS – Attach site maj		-		•
	34			, important roaturos, cto.
Hydrophytic Vegetation Present? Yes ☐ No ☑ Hydric Soil Present? Yes ☐ No ☒	-	is the Sample	d Area	
Wetland Hydrology Present? Yes ☐ No 🗵		within a Wetla	ınd? Yes ☐ f	40 ⊠
Remarks: Southwestern portion of the project site. Plow	-			
·				
VEGETATION – Use scientific names of pla	nts.			
	Absolute	Dominant Indicator	Dominance Test work	sheet:
Tree Stratum (Plot size: 15ft radius)		Species? Status	Number of Dominant S	pecies
1			That Are OBL, FACW,	or FAC: <u>0</u> (A)
2	-		Total Number of Domin	
3			Species Across All Stra	ta: <u>0</u> (B)
4			Percent of Dominant S	
Sapling/Shrub Stratum (Plot size: 15ft radius)	U	= Total Cover	That Are OBL, FACW,	or FAC: <u>0</u> (A/B)
1			Prevalence Index wor	ksheet:
2			Total % Cover of:	Multiply by:
3	_	-	OBL species	x1=
4			FACW species	x 2 =
5			I I	x 3 =
Herb Stratum (Plot size: 15ft radius)	0	= Total Cover	į .	x 4 =
Festuca arundinacea	10	<u>FAC</u>	i	x 5 =
2. Mentha arvensis		FACW	Column I otals:	(A) (B)
3. Cirsium vulgare			Prevalence Index	= B/A =
4. <u>Vicia americana.</u>			Hydrophytic Vegetation	
5. Geranium molle			Rapid Test for Hydr	ophytic Vegetation
6	-		☐ Dominance Test is	>50%
7	-	-	☐ Prevalence Index is	
8.			☐ Morphological Adap	tations ¹ (Provide supporting
9			□ Wetland Non-Vasci	s or on a separate sheet)
10	- . 			hytic Vegetation ¹ (Explain)
11			i	I and wetland hydrology must
Woody Vine Stratum (Plot size: 15ft radius)	35	= Total Cover	be present, unless distu	irbed or problematic.
1				
2.			Hydrophytic	
	0		Vegetation Present? Yes	s □ No ⊠
% Bare Ground in Herb Stratum 65				- Land 1949 Kandi
Remarks:				

Profile Descr	ription: (Describ	e to the c	lepth n	eeded to docur	nent the	indicator	or confir	rm the a	bsence	of indicators)
Depth	Matrix				x Feature					oa.cato.ci,
	Color (moist)	%	Col	or (moist)	%	Type ¹	_Loc ²	Text	ure	Remarks
	10YR 3/2	100			-			<u> </u>		
16-24	10YR 3/3	98	<u>10Y</u>	R 4/4	2	<u>cs</u>	M	fs		
								-		
					-			-		
	Add	-	-							-
¹ Type: C=Cor	ncentration, D=De	pletion, R	M=Rec	luced Matrix, CS	S=Covered	d or Coate	ed Sand C			cation: PL=Pore Lining, M=Matrix.
	dicators: (Appli	cable to				ed.)		ļ	Indicato	rs for Problematic Hydric Soils ³ :
☐ Histosol (A☐ ☐ Histic Epip	•			Sandy Redox (S				!		Muck (A10)
☐ Black Histi	• •			Stripped Matrix (Parent Material (TF2)
1	Sulfide (A4)			Loamy Mucky M			MLRA 1)			Shallow Dark Surface (TF12)
	Below Dark Surfac	- (Δ11)		Loamy Gleyed N Depleted Matrix)		l	Othe	r (Explain in Remarks)
	Surface (A12)	~ (/111)		Redox Dark Sur				3	Indianta	an at heralmonika di anamatanti anamat
	cky Mineral (S1)			Depleted Dark S		7)				rs of hydrophytic vegetation and nd hydrology must be present,
	yed Matrix (S4)			Redox Depressi		' '				s disturbed or problematic.
Restrictive La	yer (if present):							·		s distance of problematic.
Type:				_						
Depth (inch	nes):							Hvd	ric Soil	Present? Yes ☐ No ⊠
Remarks:								1.,		10001111 100 [2]
HYDROLOG	iY ology Indicators	-								
	tors (minimum of		red: ch	ack all that anni-	٨				0	
☐ Surface W		one requi	rcu, cin			- (DO) (dary Indicators (2 or more required)
1	r Table (A2)			☐ Water-Stair			kcept ML	.KA	∐ VVa	ater-Stained Leaves (B9) (MLRA 1, 2,
☐ Saturation				· ·	, and 4B))				4A, and 4B)
☐ Water Mar				☐ Salt Crust (•	(D40)				ainage Patterns (B10)
	Deposits (B2)			☐ Aquatic Inv						y-Season Water Table (C2)
☐ Drift Depos	• • •			☐ Hydrogen S						turation Visible on Aerial Imagery (C9)
	or Crust (B4)			Oxidized RI				ots (C3)		eomorphic Position (D2)
☐ Iron Depos	` '			☐ Presence o		•	•			allow Aquitard (D3)
	oil Cracks (B6)			Recent Iron						C-Neutral Test (D5)
	Visible on Aerial I	mages: /	R7\	☐ Stunted or :			I) (LRR A	()		ised Ant Mounds (D6) (LRR A)
	egetated Concave			Other (Expl	ain in Rer	narks)			☐ Fro	ost-Heave Hummocks (D7)
Field Observa		- Surface	(DO)							
Surface Water		/oo !" ·	VI- KT	Daniel e						
			Vo ⊠	Depth (inches)			1			
Water Table P			Vo ⊠	Depth (inches)						
Saturation Pres (includes capill		∕es 🔲 i	Vo ⊠	Depth (inches)):		Wet	land Hy	drology	Present? Yes 🗌 No 🖂
Describe Reco	rded Data (stream	gauge. i	nonitor	ing well, aerial n	hotos pre	evious ins	nections)	if avail	able.	
	,	5 -5-11		, aonai p	, pi		podiono),	, n avall	WIG.	
Remarks:										-

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

State WA	Project/Site: Parcels 0420254702 and	d -4027		City/Co	unty: <u>Sumner,</u>	Pierce	_ Sampling Date: 14 M.	AR 2013
Lendform (fillslope, terrace, eta.):	Applicant/Owner:				P10-1	State: WA.	_ Sampling Point: SP-	4
Subregion (LRR): A	Investigator(s): Habitat Technologies				Section, To	ownship, Range: <u>S25, T2</u>	0, R4E	
Late	Landform (hillslope, terrace, etc.):			Local	relief (concave	, convex, none):	Slope (%):
Soli Map Unit Name: Briscot bam								
Are climatic / hydrologic conditions on the site hypical for this time of year? Yes \Borelow{\text{Normal Circumstences} present? Yes \Borelow{\text{Normal Submittens}} No \Borelow{\text{Wetland Hydrology Present?} Yes \Borelow{\text{Normal Submittens}} No \Borelow{\text{Wetland Hydrology Present?} Yes \Borelow{\text{Normal Submittens}} No \Borelow{\text{Normal Submittens}} Yes \Borelow{\text{Normal Submittens}} No \Borelow{\text{Wetland Hydrology Present?} Yes \Borelow{\text{Normal Normal Submittens}} No \Borelow{\text{Normal Submittens}} Yes \Borelow{\text{Normal Normal Submittens}} No \Borelow{\text{Normal Submittens}} Yes \Borelow{\text{Normal Normal Submittens}} No \Borelow{\text{Normal Normal Submittens}} No \Borelow{\text{Normal Submittens}} No \Borelow{\text{Normal Normal Submittens}} No \Borelow{\text{Normal Normal Submittens}} No \Borelow{\text{Normal Normal Submittens}} No \Borelow{\text{Normal Normal Submittens}} Normal Submittens} No \Borelow{\text{Normal Normal Normal Submittens}} No \Borelow{\text{Normal Normal Normal Submittens}} No \Borelow{\text{Normal Normal Normal Submittens}} No \text{Normal Normal								
Are Vegetation Soil or Hydrology naturally problematic?								
Are Vegetation Soil or Hydrology naturally problematic?	Are Vegetation, Soil, or	· Hydrology sigr	ificantly dis	turbed?	Are "No	ormal Circumstances" pre	esent? Yes ⊠ No []
Hydrophytic Vegetation Present? Yos						•		-
Hydric Soil Present? Yes	SUMMARY OF FINDINGS -	Attach site map	showing	samp	ling point l	ocations, transects	s, important featu	res, etc.
Welsland Hydrology Present? Yes No No No No No No No N	Hydrophytic Vegetation Present?	Yes ☐ No 🗵		3.	e the Sampled	I Aroa	weeken concern.	
No No No No No No No No	•	Yes 🗌 No 🛛		ı	-		No.⊠	
VEGETATION - Use scientific names of plants. Absolute				.	AILIIII A AACUAI	id: ies []	140 M	
Absolute		_						
Secretarian				Domin	ant Indicator	Dominance Test worl	ksheet:	
2.			% Cover	Speci	es? Status	Number of Dominant S	Species	_ (A)
Sapling/Shrub Stratum (Plot size: 15ft radius) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)	2					•		(B)
Sapiling/Shrub Stratum (Plot size: 15ft radius) Prevalence Index worksheet: Total % Cover of:						Percent of Dominant S	pecies	_ ` '
2.				-			• • • • • • • • • • • • • • • • • • • •	_ (AVD)
3								
4								_
5						I .		
Herb Stratum (Plot size: 15ft radius) 1. Geranium molle								
Herb Stratum (Plot size: 15ft radius) UPL species	J					1		
1. Geranium molle 2	Herb Stratum (Plot size: 15ft radiu	<u>s</u>)	<u> </u>	100	ai Covei	I .		
2	1. Geranium molle		20					
Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Hydrophytic Vegetation Problematic Hydrophytic Vegetation Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No No								
5								
Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No ⊠								
7				- —				
8								
9				•		1 —		vortina
10								
11						☐ Wetland Non-Vasc	cular Plants ¹	
Woody Vine Stratum (Plot size: 15ft radius) 1 2						☐ Problematic Hydro	phytic Vegetation ¹ (Exp	ılain)
2					al Cover			y must
<u>0</u> = Total Cover Present? Yes ☐ No ☑ % Bare Ground in Herb Stratum <u>80</u>								
Remarks:							es 🗌 No 🛛	
	Remarks:							

Sampling Point: SP-4

Profile Description: (Desc		l- u	iceded to docu	ment nic	muncaron	or connim	n the ab	sence of indicat	ors.)
DepthMa	trix		Redo	ox Feature					,
(inches) Color (moist)	%_	<u>Col</u>	or (moist)	%	Type ¹	_Loc ²	Textu	re	Remarks
0-17 10YR 3/3	100						1		
17-24 10YR 4/2	90	<u>10\</u>	′R 4/4	10	<u>cs</u>	<u>M</u>	fs		
									
				-	-				
						***************************************	-		
¹ Type: C=Concentration, D	=Depletion,	RM=Red	duced Matrix, C	S=Covere	d or Coate	ed Sand Gr			Pore Lining, M=Matrix.
Hydric Soil Indicators: (A	pplicable to				ed.)		In	dicators for Prol	olematic Hydric Soils ³ :
Histosol (A1)			Sandy Redox (S	•					
Histic Epipedon (A2)			Stripped Matrix						
☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4)			Loamy Mucky N			MLRA 1)		· ·	ark Surface (TF12)
	E / A / A /		Loamy Gleyed I)			Other (Explain i	n Remarks)
☐ Depleted Below Dark Su☐ Thick Dark Surface (A12			Depleted Matrix				•		
,	•		Redox Dark Sur				°lr		phytic vegetation and
☐ Sandy Mucky Mineral (S☐ Sandy Gleyed Matrix (S			Depleted Dark S	•	7)				gy must be present,
Restrictive Layer (if preser			Redox Depress	ions (F8)				unless disturbed	or problematic.
Type:	iit).								
Depth (inches):			-				Lludri	c Soil Present?	Vac Cl. No Cl
Remarks:						*****	nyun	C 3011 Fresent?	Yes 🗌 No 🛛
-									
*									
						-			
HYDROLOGY						-			
Wetland Hydrology Indicat									
HYDROLOGY Wetland Hydrology Indicat Primary Indicators (minimum		uired; ch	eck all that appi	(y)				Secondary Indica	ators (2 or more required)
Wetland Hydrology Indicat		uired; ch			es (B9) (e	xcept MLR			
Wetland Hydrology Indicate Primary Indicators (minimum		uired; ch	☐ Water-Stai			xcept MLR		☐ Water-Staine	d Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1)		uired; ch	☐ Water-Stai	ned Leave A, and 4B		xcept MLR	 RA	☐ Water-Staine 4A, and 4	d Leaves (B9) (MLRA 1, 2, IB)
Wetland Hydrology Indicated Primary Indicators (minimum Surface Water (A1) High Water Table (A2)		uired; ch	☐ Water-Stai 1, 2, 44 ☐ Salt Crust	ned Leave A, and 4B (B11))	xcept MLR	RA	☐ Water-Staine 4A, and 4 ☐ Drainage Pat	d Leaves (B9) (MLRA 1, 2, IB) terns (B10)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		uired; ch	☐ Water-Stai 1, 2, 44 ☐ Salt Crust	ned Leave A, and 4B (B11) /ertebrate	s (B13)	xcept MLR	RA	☐ Water-Staine 4A, and 4 ☐ Drainage Pat ☐ Dry-Season \	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Water Table (C2)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)		uired; ch	☐ Water-Stai 1, 2, 44 ☐ Salt Crust ☐ Aquatic Inv ☐ Hydrogen S	ned Leave A, and 4B (B11) rertebrate Sulfide Oc	s (B13) or (C1)			☐ Water-Staine 4A, and 4 ☐ Drainage Pat ☐ Dry-Season \ ☐ Saturation Visit	d Leaves (B9) (MLRA 1, 2, tB) terns (B10) Water Table (C2) sible on Aerial Imagery (C9)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		uired; ch	Usater-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R	ned Leave A, and 4B (B11) rertebrates Sulfide Oc thizospher	s (B13) or (C1) es along	Living Root		Water-Staine 4A, and 4 □ Drainage Pat □ Dry-Season \ □ Saturation Vis □ Geomorphic	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Vater Table (C2) sible on Aerial Imagery (C9) Position (D2)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		uired; ch	Usater-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C	ned Leave A, and 4B (B11) rertebrates Sulfide Oc thizospher of Reduce	s (B13) for (C1) es along d Iron (C4	Living Root	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season N Saturation Vis Geomorphic I Shallow Aqui	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Water Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	n of one req	uired; ch	Usater-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron	ned Leave A, and 4B (B11) vertebrates Sulfide Oc thizospher of Reduce n Reduction	s (B13) or (C1) es along d Iron (C4 on in Tilled	Living Root l) d Soils (C6)	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season N Saturation Vis Geomorphic I Shallow Aqui FAC-Neutral	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Water Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	1 of one req		Usater-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron Stunted or	ned Leave A, and 4B (B11) vertebrates Sulfide Oc thizospher of Reduce n Reductio Stressed	s (B13) for (C1) es along d Iron (C4 on in Tilled Plants (D	Living Root l) d Soils (C6)	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season V Saturation Vi Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Water Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae	n of one required to the requirement of the require	ı (B7)	Usater-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron	ned Leave A, and 4B (B11) vertebrates Sulfide Oc thizospher of Reduce n Reductio Stressed	s (B13) for (C1) es along d Iron (C4 on in Tilled Plants (D	Living Root l) d Soils (C6)	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season V Saturation Vi Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Water Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con	n of one required to the requirement of the require	ı (B7)	Usater-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron Stunted or	ned Leave A, and 4B (B11) vertebrates Sulfide Oc thizospher of Reduce n Reductio Stressed	s (B13) for (C1) es along d Iron (C4 on in Tilled Plants (D	Living Root l) d Soils (C6)	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season V Saturation Vi Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Water Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations:	n of one req) rial Imagery cave Surfac	/ (B7) Ce (B8)	Usater-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iron Stunted or Other (Exp	ned Leave A, and 4B (B11) rertebrates Sulfide Oc thizospher of Reduce n Reductio Stressed	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root l) d Soils (C6)	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season V Saturation Vi Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Water Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations:	of one required in one	v (B7) ce (B8) No ⊠	Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron Stunted or Other (Exp	ned Leave A, and 4B (B11) vertebrates Sulfide Oc Rhizospher of Reduce in Reduction Stressed Islain in Res	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root l) d Soils (C6)	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season V Saturation Vi Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Water Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations: Surface Water Present?	of one required in one required in one required in of one required in one required	v (B7) ce (B8) No ⊠ No ⊠	Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron Stunted or Other (Exp	ned Leave A, and 4B (B11) vertebrates Sulfide Oc chizospher of Reduce n Reduction Stressed slain in Res	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root l) d Soils (C6) 1) (LRR A)	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season N Saturation Via Geomorphic Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Vater Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A) Hummocks (D7)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present?	of one required in one	v (B7) ce (B8) No ⊠	Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron Stunted or Other (Exp	ned Leave A, and 4B (B11) vertebrates Sulfide Oc chizospher of Reduce n Reduction Stressed slain in Res	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root l) d Soils (C6) 1) (LRR A)	ts (C3)	Water-Staine 4A, and 4 Drainage Pat Dry-Season V Saturation Vi Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Vater Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A) Hummocks (D7)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present? (includes capillary fringe)	of one required in the requirement of the requireme	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or Other (Exp Depth (inches Depth (inches	ned Leave A, and 4B (B11) vertebrates Sulfide Oc Rhizospher of Reduce n Reductio Stressed slain in Res	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root d Soils (C6) l) (LRR A)	ts (C3)) and Hyd	Water-Staine 4A, and 4 Drainage Pat Dry-Season N Saturation Vis Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Vater Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A) Hummocks (D7)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present?	of one required in the requirement of the requireme	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or Other (Exp Depth (inches Depth (inches	ned Leave A, and 4B (B11) vertebrates Sulfide Oc Rhizospher of Reduce n Reductio Stressed slain in Res	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root d Soils (C6) l) (LRR A)	ts (C3)) and Hyd	Water-Staine 4A, and 4 Drainage Pat Dry-Season N Saturation Vis Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Vater Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A) Hummocks (D7)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present? (includes capillary fringe)	of one required in the requirement of the requireme	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or Other (Exp Depth (inches Depth (inches	ned Leave A, and 4B (B11) vertebrates Sulfide Oc Rhizospher of Reduce n Reductio Stressed slain in Res	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root d Soils (C6) d (LRR A)	ts (C3)) and Hyd	Water-Staine 4A, and 4 Drainage Pat Dry-Season N Saturation Vis Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Vater Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A) Hummocks (D7)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (str	of one required in the requirement of the requireme	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or Other (Exp Depth (inches Depth (inches	ned Leave A, and 4B (B11) vertebrates Sulfide Oc Rhizospher of Reduce n Reductio Stressed slain in Res	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root d Soils (C6) d (LRR A)	ts (C3)) and Hyd	Water-Staine 4A, and 4 Drainage Pat Dry-Season N Saturation Vis Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Vater Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A) Hummocks (D7)
Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (str	of one required in the requirement of the requireme	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or Other (Exp Depth (inches Depth (inches	ned Leave A, and 4B (B11) vertebrates Sulfide Oc Rhizospher of Reduce n Reductio Stressed slain in Res	s (B13) or (C1) es along d Iron (C4 on in Tilled Plants (D marks)	Living Root d Soils (C6) d (LRR A)	ts (C3)) and Hyd	Water-Staine 4A, and 4 Drainage Pat Dry-Season N Saturation Vis Geomorphic I Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	d Leaves (B9) (MLRA 1, 2, IB) terns (B10) Vater Table (C2) sible on Aerial Imagery (C9) Position (D2) tard (D3) Test (D5) lounds (D6) (LRR A) Hummocks (D7)

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Parcels 0420254702 and -4027		City/County: Sumner,	Pierce	Sampling Date: 14 MAR 2013
Applicant/Owner:			State: WA.	Sampling Point: SP-5
Investigator(s): Habitat Technologies		Section, T	ownship, Range: <u>S25, T</u>	20, R4E
Landform (hillslope, terrace, etc.):				
Subregion (LRR): A				
Soil Map Unit Name: <u>Brîscot loam</u>				
Are climatic / hydrologic conditions on the site typical for				
Are Vegetation, Soil, or Hydrology	significantly dis	sturbed? Are "N	ormal Circumstances" p	resent? Yes ⊠ No □
Are Vegetation, Soil, or Hydrology	naturally proble	matic? (If need	led, explain any answers	s in Remarks.)
SUMMARY OF FINDINGS – Attach site m	an showing	sampling point l	ocations transect	's important fasturae at
		Jamping Politi	- Country Elanoco	o, important reatures, etc
Hydrophytic Vegetation Present? Yes No		Is the Sample	i Area	
Hydric Soil Present? Yes ☐ No Wetland Hydrology Present? Yes ☐ No	_	within a Wetla	nd? Yes □	No ⊠
Remarks: Northeastern portion of the project site. Plo				
, , , , , , , , , , , , , , , , , , , ,	nou and anou.			
VEGETATION – Use scientific names of p	lants.		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
-	Absolute	Dominant Indicator	Dominance Test wo	rksheet:
Tree Stratum (Plot size: 15ft radius) 1		Species? Status	Number of Dominant	Species /, or FAC: 0(A)
2				
3			Total Number of Dom Species Across All St	
4			Percent of Dominant	
Sapling/Shrub Stratum (Plot size: 15ft radius)	0	= Total Cover		/, or FAC: <u>0</u> (A/B)
1			Prevalence Index wo	orksheet:
2.			Total % Cover of	
3				x1=
4				x 2 =
5			i	x 3 =
Herb Stratum (Plot size: 15ft radius)	0	= Total Cover	•	x 4 =
1				x 5 =
2.			Column Totals:	(A) (B)
3			Prevalence Inde	ex = B/A =
4			Hydrophytic Vegeta	
5			☐ Rapid Test for Hy	
6			Dominance Test i	
7			☐ Prevalence Index	
8			data in Remai	aptations ¹ (Provide supporting ks or on a separate sheet)
9			☐ Wetland Non-Vas	
11.			☐ Problematic Hydr	ophytic Vegetation ¹ (Explain)
	w	= Total Cover		oil and wetland hydrology must
Woody Vine Stratum (Plot size: 15ft radius)			be present, unless dis	sturbed or problematic.
1.			Hydrophytic	•
2			Vegetation	. = =
		- Total Cassas	Present? Y	'es □ No 🏻
% Bare Ground in Herb Stratum 100	0	= Total Cover		

Profile Description: (Describe to the	iebru ueeded to dochi	ment the	indicator	or contin	m the absence	of indicators.)
Depth Matrix		x Feature				,
(inches) Color (moist) %	Color (moist)	%		_Loc ²	Texture	Remarks
<u>0-17 </u>					ı	
<u>17-24</u> <u>10YR 4/2</u> 90	10YR 4/4	10	CS	M	fs	
				IAI	19	
,						
					M	and the second s
					-	
¹ Type: C=Concentration D=Donletion D	N/-Dadward North Co				- 7.	
¹ Type: C=Concentration, D=Depletion, R Hydric Soil Indicators: (Applicable to	all I RRs unless othe	S=Covere	o or Coate	ed Sand G		cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Redox (S		.cu.j			
☐ Histic Epipedon (A2)	☐ Stripped Matrix					n Muck (A10) Parent Material (TF2)
☐ Black Histic (A3)	Loamy Mucky M		I) (excent	MIRA 1		Shallow Dark Surface (TF12)
☐ Hydrogen Sulfide (A4)	Loamy Gleyed I	-				er (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix		,			Capital in Normality
☐ Thick Dark Surface (A12)	Redox Dark Sur	. ,			3Indicate	ors of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	☐ Depleted Dark S	Surface (F	7)			and hydrology must be present,
☐ Sandy Gleyed Matrix (S4)	☐ Redox Depress	ions (F8)			unles	ss disturbed or problematic.
Restrictive Layer (if present):		170 2010				
Type:						
Depth (inches):					Hydric Soil	Present? Yes □ No ☒
Remarks:						
1						
LIVEDOL COV				· · · · · · · · · · · · · · · · · · ·		
HYDROLOGY						
Wetland Hydrology Indicators:						
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi						ndary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi ☐ Surface Water (A1)	red; check all that appl		es (B9) (e.	xcept MLF		ndary Indicators (2 or more required) /ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2)	☐ Water-Stai			xcept MLF		
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3)	☐ Water-Stai	ned Leav A, and 4B		xcept MLF	RA U	/ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	☐ Water-Stai 1, 2, 4 <i>i</i>	ined Leave A, and 4B (B11))	xcept MLI	RA U	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	☐ Water-Stai 1, 2, 4,4 ☐ Salt Crust ☐ Aquatic Inv	ned Leave A, and 4B (B11) rertebrate Sulfide Od) s (B13) dor (C1)		RA W	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	☐ Water-Stai 1, 2, 4 <i>i</i> ☐ Salt Crust ☐ Aquatic Inv	ned Leave A, and 4B (B11) rertebrate Sulfide Od) s (B13) dor (C1)		RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
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PHOTOS



General south to north view of the project site. The project site has been actively managed for agricultural production for several decades. March 2013.



Typical soil sample plot. The soil is moderately to well drained and does not exhibit prominent hydric field indicators. March 2013.